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The Development Planning Unit  
University College London

# **Private Housing Development: Refining Rational Choice**

*by*

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*In the Name of Allah,  
the Beneficent, the Merciful*

*For my beloved parents:*

*My late father, whose final words to me a  
few months after I finished secondary  
school, gave me the conviction and hunger  
for expanding my knowledge and learning.*

*My mother, who after my father's death,  
shows immense courage and determination  
in raising ten children on her own,  
providing me with the perfect example of  
strength and fortitude in adversity, by  
having a positive outlook on life.*

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## ABSTRACT

Housing, as the principal focus of personal and family life, has a pervasive impact on all aspects of our existence, providing privacy and security, both physical and emotional, while embodying not only our material possessions, but also our dreams and despair. For most households in developing countries, financing housing constitutes a substantial proportion of household expenditure.

Most research on housing finance focuses on measures of affordability and establishment of formal institutions. Others restrict their field of inquiry to the implementation of micro-credit facilities for incremental housing by lower income groups. Due to successive failures of public housing in many developing countries, strategies advocated by the global community tend towards diverting State involvement from provision to facilitation; effective regulatory mechanisms deemed essential to enable private enterprise and informal practices in housing provision.

Maldives experienced rapid economic growth during the last decades propelled by the expansion of tourism. Yet, economic and social disparities between the capital, Malé, and other islands continue to exist. Consequently, in-migration to Malé has fuelled an insatiable demand for housing. In the absence of formal housing finance, plot-holders in Malé cannot construct multi-storey housing that optimised land scarcity. This research focuses on the process by which private developers rent land from plot-holders to construct multi-storey rental housing, resulting in: income and shelter security for plot-holders; increase in housing stock of Malé; and accumulation of capital for developers, with minimal State involvement or institutional support.

Quantitative and qualitative data were collected from renters, plot-holders and developers through purposive sampling. Based on the ideological perspective of rational choice theory, grounded theory methodology was utilised to develop a substantive theory on housing finance that: in situations of absolute scarcity of land, and low levels of institutional support, the decisions of private developers in the process of multi-storey rental housing production appear within the paradigm of rational utility maximisation. However, deeper analyses of their motives reveal elements of altruism, benevolence and charity dominating their decisions within the socio-cultural milieu of Malé where kith and kin relationships influence investment decisions.

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# LIST OF ABBREVIATIONS

ADB	– Asian Development Bank
ADC	– Atoll Development Committee
CDMS	– Capital Market Development Section
CPI	– Consumer Price Index
DIR	– Department of Inland Revenue
ECOSOC	– United Nations Economic and Social Council
GDP	– Gross Domestic Product
GIS	– Geographical Information System
GT	– Grounded Theory
HDC	– Hulhumalé Development Corporation
HDFC	– Housing Development Finance Corporation
HDI	– Human Development Index
HDU	– Hulhumalé Development Unit
HIES	– Housing Income and Expenditure Survey
HSBC	– Hong Kong and Shanghai Banking Corporation
IDA	– International Development Agency
IDC	– Island Development Committee
IGMH	– Indhira Gandhi Memorial Hospital
IRR	– Internal Rate of Return
IWC	– Island Women’s Committee
LCH	– Life Cycle Hypothesis
LDC	– Least Developed Countries
MACI	– Maldives Association of Construction Industry
MCPW	– Ministry of Construction and Public Works
MDG	– Millennium Development Goals
MHREL	– Ministry of Human Resources, Employment and Labour
MHUD	– Ministry of Housing and Urban Development
MHUIDB	– Maldives Housing and Urban Development Board
MIFCO	– Maldives Industrial Fisheries Company
MMA	– Maldives Monetary Authority
MOAD	– Ministry of Atolls Development
MPND	– Ministry of Planning and National Development
MTCC	– Maldives Transport and Construction Company
NDP	– National Development Plan
NGO	– Non-Governmental Organisation
NPV	– Net Present Value
PIH	– Permanent Income Hypothesis



PLC – Public Limited Company  
PPP – Purchasing Power Parity  
RAF – Royal Air Force  
Rf – Rufiyaa  
SARS – Severe Acute Respiratory Syndrome  
SIDS – Small Island Development States  
SOE – State Owned Enterprise  
SPSS – Statistical Package for the Social Sciences  
STELCO – State Electric Company  
STF – Securities Trading Floor  
TFR – Total Fertility Rate  
UK – United Kingdom of Great Britain and Northern Ireland  
UNCDF – United Nations Capital Development Fund  
UNCHS – United Nations Centre for Human Settlements  
UNDP – United Nations Development Programme  
UNESCAP – United Nations Economic and Social Commission for Asia and the Pacific  
VPA – Vulnerability and Poverty Assessment

# **CHAPTER 1: CONTEXT ANALYSIS**

## **1.1 Statement of the Research Problem**

Land for housing in Malé, the capital island, and throughout Maldives, is allocated by the Government for individuals in their island of abode, based on need. Such land is held in perpetuity with rights of inheritance to their heirs upon the demise of the plot-holder. In Malé, with acute land shortages, no new allocation is possible. Instead, existing housing plots gets continually subdivided among heirs into ever decreasing sizes.

The construction of housing is usually financed by the families themselves. Given the high cost of living and the low earnings of plot-holders on Malé, most households lack the capacity to invest in multi-storey housing construction. Until early 2004, no institutional finance existed for housing development. Bank loans, with high interest rates and short repayment periods, have not proved conducive for housing construction.

One of the ways through which plot-holders have managed to construct housing has been through developer financed construction. In this process, the developer leases the land from the plot-holder for up to 10 years, as regulated by Government, and constructs a multi-storey building. The costs of construction are recovered, by the developer, by renting out floor space, as shops and office space on lower floors, and as residential apartments on upper floors. Since the mid-1980s, high rates of economic growth, fuelled by the proliferation of the tourism industry, have resulted in a large amount of affluent in-migrants seeking rental accommodation in Malé. The plot-holder usually receives money from the developer to find alternative accommodation during the construction period, and generally gets one or more apartments, upon completion of construction. At the end of the lease period, the whole building reverts to the plot-holder at zero cost, providing a potential future source of income and shelter security.

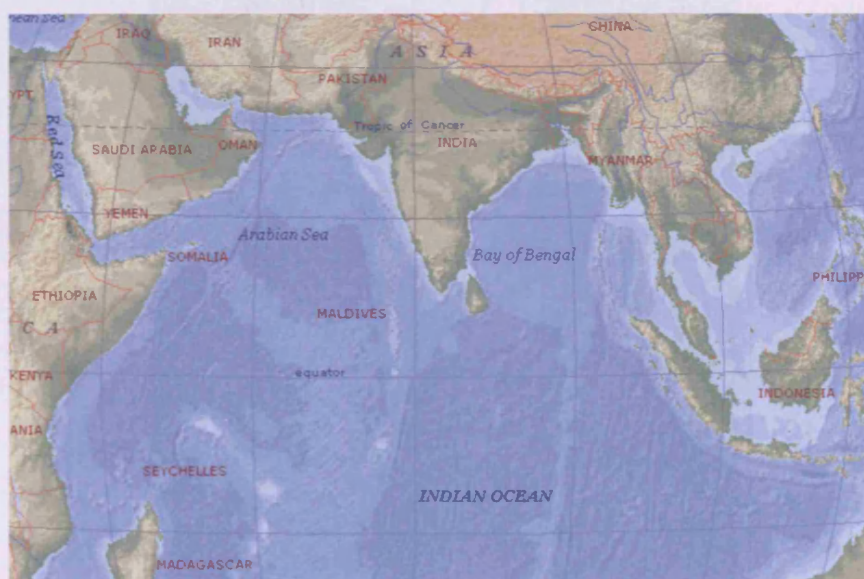
Low levels of institutional development have resulted in inadequate legislative and regulatory instruments to protect and safeguard the rights and interests of developers, renters and plot-holders. Despite this dearth of legislative and institutional support, multi-storey housing is being constructed in Malé through a process of developer financed private housing development. The circumstances for this process are created by Government legislation borne out of absolute scarcity of land. What are these circumstances, how do the key players interact, and why do they take part in the process?

This research seeks to develop new theoretical understanding from the analysis of findings of this research problem. It will also identify how this understanding contributes to the existing body of knowledge on private housing investment.

## 1.2 Country Background

The circumstances for the scarcity of land emanate from the unique geography of Maldives which comprises 1,200 small coral islands, less than 2 metres above sea level, in an archipelago spread over 115,300 square kilometres of the Indian Ocean, 700 km south-west of Sri Lanka. More precisely the location of Maldives is between latitudes 7°6'35"N to 0°42'24"S and longitudes 72°33'19"E to 73°46'13"E. The total land area measures less than 300 sq. km. The country has a hot and humid tropical climate with daily minimum and maximum temperatures which averaged 26.0°C and 30.7°C respectively, over the ten-year period 1994-2003 (MPND, 2004a). Over these 10 years, Maldives enjoyed on average 2,782 hours of sunshine and 2,088 millimetres of rainfall, annually.

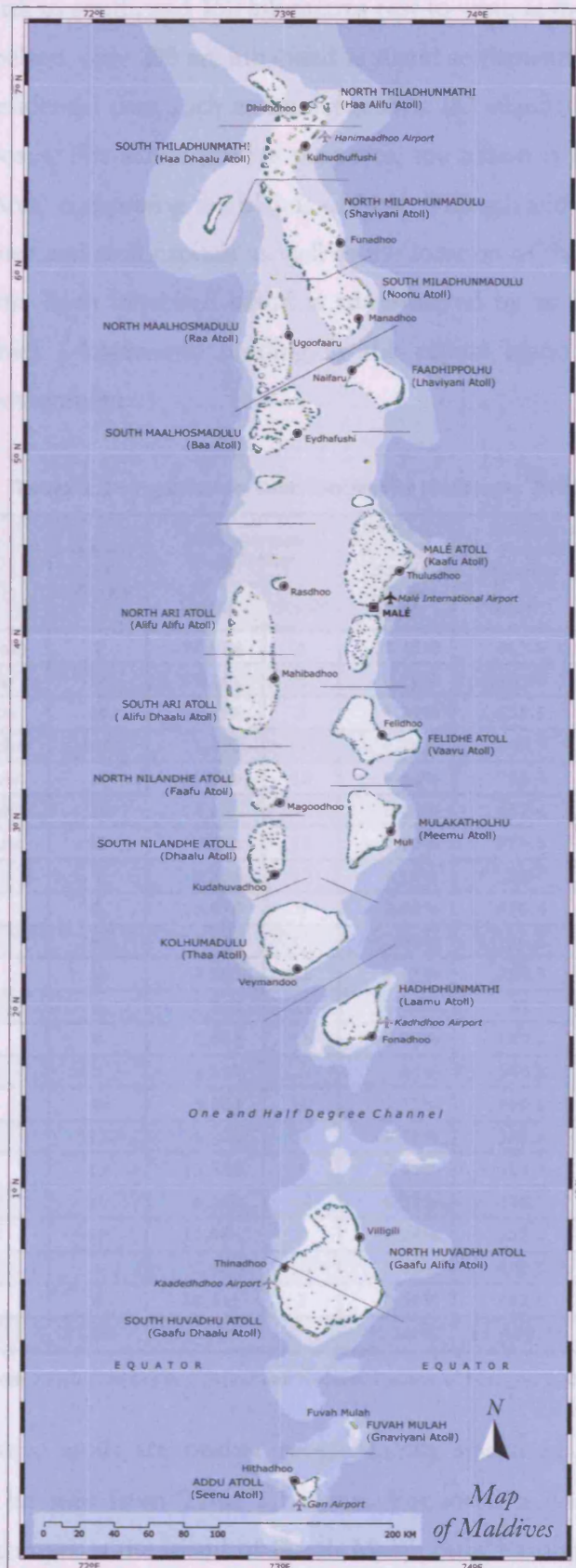
**Figure 1.1: Location of Maldives**



Source: Microsoft® Encarta Encyclopaedia 2002

Maldives lies outside the cyclone belts of the world and, until recently, has been relatively free of natural disasters. Moreover, Maldives is a tropical coral island nation endowed with pristine beauty rich in marine life. This natural environment provides the country with a unique marketable asset, which has, through the development of tourism, succeeded in transforming the economic fortunes of the country over the last two to three decades.

**Figure 1.2: Map of Maldives**



Adapted by the author from MPND map at:  
[www.planning.gov.mv/yrb2004/Key%20Indicators/KeyIndicators.pdf](http://www.planning.gov.mv/yrb2004/Key%20Indicators/KeyIndicators.pdf)



Figure 1.2 shows a map of Maldives comprising 26 natural atolls spread over 800 kilometres from north to south, and 150 kilometres east to west, at the widest. Of the 1192 islands in the archipelago, only 200 are inhabited as island settlements. Another 110 islands are used for non-residential uses such as tourist resorts (87 islands), airports, agricultural and industrial purposes. For administrative purposes, the nation is divided into 20 atolls and Malé (Capital Area) comprising the islands of Malé, Villingili and Hulhumalé. The map shows the atoll names and atoll capitals as well as the location of the international airport and regional airports. Each inhabited island is administered by an Island Chief (*Kattheeb*) under an Atoll Chief (*Atholhuverin*) residing in the capital island of each atoll, both appointed by the Government.

**Table 1.1: Population Distribution in Maldives, 2000**

Atoll Code	Atoll/Locality	No. of Admin Islands	2000 Census Population		Annual Growth Rate 1995-2000	Land Area of Inhabited Islands (ha)		Population Density (persons/ha)	
			Value	Rank		Value	Rank	Value	Rank
-	Malé (Capital Area)	1	74,069	1	3.45%	218.8	17	338.52	1
HA	N Thiladhunmathi	16	14,161	5	0.70%	1,333.0	3	10.62	19
HDh	S Thiladhunmathi	16	16,956	3	1.99%	1,651.5	1	10.27	20
Sh	N Miladhunmadulu	15	11,406	9	1.74%	947.5	4	12.04	18
N	S Miladhunmadulu	13	10,429	10	0.64%	750.4	6	13.90	17
R	N Maalhosmadhulu	15	14,486	4	2.26%	487.4	8	29.72	7
B	S Maalhosmadhulu	13	9,612	11	1.99%	373.3	12	25.75	9
Lh	Faadhippolhu	5	9,385	12	3.15%	115.7	20	81.11	2
K	Malé Atoll	9	13,474	6	2.91%	429.4	10	31.38	5
AA	N Ari Atoll	8	5,518	17	-3.79%	286.0	14	19.29	14
ADh	S Ari Atoll	10	7,803	15	8.21%	258.8	15	30.15	6
V	Felidhe Atoll	5	1,753	21	0.88%	41.9	21	41.84	3
M	Mulakatholhu	9	5,084	18	0.91%	249.2	16	20.40	11
F	N Nilandhe Atoll	5	3,827	20	3.87%	146.3	19	26.16	8
Dh	S Nilandhe Atoll	8	5,067	19	1.12%	160.6	18	31.55	4
Th	Kolhumadulu	13	9,305	13	-0.51%	368.5	13	25.25	10
L	Hadhdhunmathi	12	11,588	8	2.67%	1,413.9	2	8.20	21
GA	N Huvadhu Atoll	10	8,249	14	0.31%	439.2	9	18.78	15
GDh	S Huvadhu Atoll	10	11,886	7	-0.24%	602.2	7	19.74	12
Gn	Fuvah Mulah	1	7,528	16	1.45%	420.0	11	17.92	16
S	Addu Atoll	6	18,515	2	0.56%	940.6	5	19.68	13
	<b>Maldives Total</b>	<b>200</b>	<b>270,101</b>		<b>1.99%</b>	<b>11,643.2</b>		<b>23.23</b>	

Derived from MPND (2001a) Population and Housing Census of Maldives 2000, Table P01

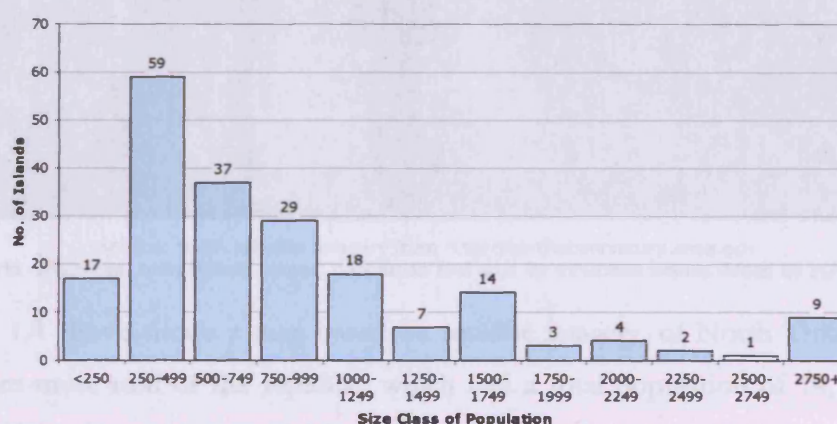
The administrative atolls are neither geographically similar in size nor of uniform population, as can be seen from Table 1.1 above. For instance, Gnaviyani Atoll in the south of Maldives comprises the island of Fuvah Mulah only. Faadhippolhu, Felidhe Atoll and North Nilandhe Atoll have just five administrative islands each, while the three



northern-most atolls, i.e., North Thiladhunmathi, South Thiladhunmathi and North Miladhunmadulu atolls with 16, 16, and 15 inhabited islands, respectively, have the most number of islands. South Thiladhunmathi (1,651.5 ha) has the largest total inhabited land area, followed by Hadhdhunmathi (1,413.9 ha) and North Thiladhunmathi (1,333.0 ha), while Felidhe Atoll (41.9 ha) is the smallest, next to Faadhippolhu (115.7 ha) and North Nilandhe Atoll (146.30 ha). The islands of Malé and Villingili, which comprise the 5 wards of Malé, have a combined land area of 218.8 hectares.

The population of Maldives, at the time of the 2000 census, was 270,101 of which Malé, the capital of the country, had a population of 74,069 which represented 27.4% of the total population of the country. Outside Malé, Addu Atoll tops the list with a population of 18,515 (6.85%), followed by South Thiladhunmathi with 16,956 (6.28%) and North Maalhosmadulu with 14,486 (5.36%), while the least populated is Felidhe Atoll with 1,753 (0.65%), below North Nilandhe Atoll with 3,827 (1.42%) and South Nilandhe Atoll with 5,067 (1.88%). Whilst Malé, has a density of 338.52 persons per hectare, the national average is 23.22 persons per hectare. Outside Malé, the most densely populated atoll is Faadhippolhu (81.11 persons/ha) followed by Felidhe Atoll (41.84 persons/ha) and South Nilandhe Atoll (31.55 persons/ha). The lowest densities are found in Hadhdhunmathi (8.20 persons/ha), South Thiladhunmathi (10.27 persons/ha) and North Thiladhunmathi (10.62 persons/ha) – three atolls with some of the largest islands in the archipelago.

**Figure 1.3: Distribution of Inhabited Islands by Population, 2000**



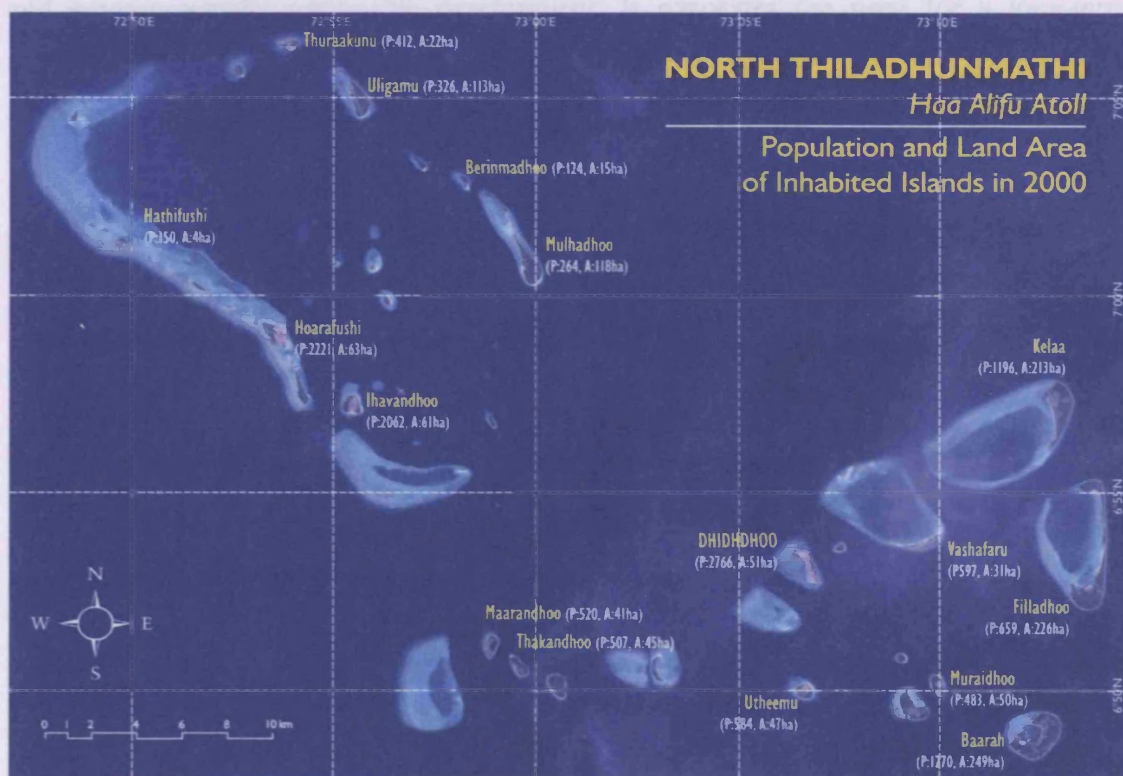
Derived from MPND (2001a), Population and Housing Census of Maldives 2000, Table P02

Figure 1.3 above shows the distribution of population over the 200 administrative islands, at the time of the 2000 census. On one extreme, 17 islands have less than 250 inhabitants; while on the other, just 9 islands have a population in excess of 2,750 people. In fact, only 4 of those have a population of 5,000 or more, and Malé with a population of



74,069 is the only island with a population in excess of 10,000. Some 76 islands, which represent 38.0% of all, have less than 500 inhabitants. Exactly half the population (50.0%) live in 184 islands each with less than 2,000 persons. Outside Malé, the most populated island is Hithadhoo (9,461) in Addu Atoll, followed by Fuvah Mulah (7,528) and Kulhudhuffushi (6,581) in North Thiladhunmathi Atoll. Excluding Malé, the median population size is 623. One of the consequences of this population distribution has been unabated in-migration to the capital, where the concentration of population satisfies the threshold demand for higher order social and economic services. But the heavy influx of migrants puts pressure on an already saturated housing market in Malé.

**Figure 1.4: Population and Area of North Thiladhunmathi Islands, 2000**



Source: NASA satellite imagery from <http://earthobservatory.nasa.gov>  
(Grid references, scale, island names, population and area for inhabited islands added by author)

Figure 1.4 above shows a map based on satellite imagery, of North Thiladhunmathi, the northern-most atoll of the republic, which had a total population of 14,161 in 2000 (MPND, 2001a) dispersed over 16 inhabited islands. In 2000, the atoll capital, Dhidhdhoo with 2,766 inhabitants, was the most populated; followed by Ihavandhoo (2,062) and Hoarafushi (2,221), whilst Berinmadhoo (124) followed by Hathifushi (150) and Mulhadhoo (264) had the fewest inhabitants.

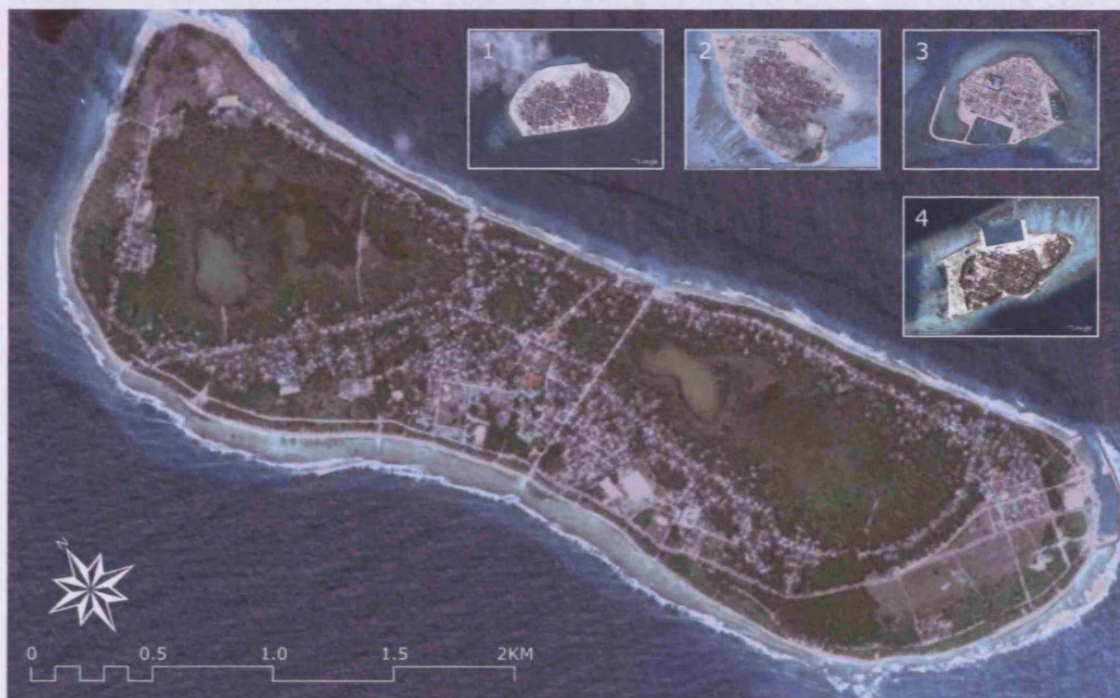
The geographic nature of the nation, where the population is scattered across relatively vast expanses of sea, poses a major developmental challenge. The desire to live in close



proximity to good fishing areas, the need to protect the island from invaders, and superstitious beliefs led to the islands originally settled being neither the largest nor the most accessible. The population is thus spread over 200 islands many of which have difficult access, severe beach erosion and poor ground water quality.

The Government has formulated a National Population Consolidation Policy aimed at consolidating island populations to larger islands with better access, expansion potential and coastal protection, to reduce the delivery costs of basic social services. This policy recognizes the difficulty to justify the high costs of providing and maintaining infrastructure and services for a highly dispersed population, and that the current distribution of population is not conducive to the promotion of a socially, economically and environmentally sustainable development. It advocates the need for a long-term national strategy and programme for settlement consolidation that will, over a period of 10-15 years, result in a considerable reduction in the number of inhabited islands.

**Figure 1.5: Island Size Comparisons**



Fuvah Mulah (Inset: 1- Kan'dholhudhoo, 2 -Thulhaadhoo, 3 - Komandoo, 4 - Keyodhoo)

Please note: All islands shown to the same scale

Prepared by the author using images from Google Earth (DigitalGlobe Image)

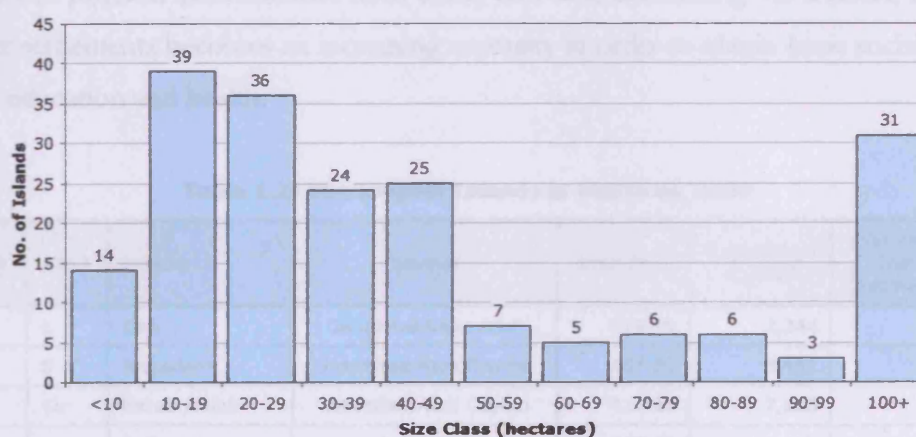
Figure 1.5 above shows the contrasting images of Fuvah Mulah, the third largest inhabited island, with its lush vegetation and two inland freshwater lakes, compared to four among the ten smallest inhabited islands – Kan'dholhudhoo, Thulhaadhoo, Komandoo and Keyodhoo. The congestion and lack of greenery is evident in Kan'dholhudhoo, the



most densely populated island in the country, which in 2002 was enlarged from 4.4 hectares to 11.2 hectares by land reclamation, in an attempt to alleviate overcrowding. The vulnerability of the islands of the Maldives to natural disasters was tragically exposed during the Asian Tsunami in December 2004 when Kan'dholhudhoo was completely destroyed and the whole population evacuated. In fact, it had to be abandoned and the population temporarily resettled in other islands, while Dhuvaaafaru, an uninhabited island in the same atoll which is more than four times the size of Kan'dholhudhoo, is being newly developed for 600 families, complete with physical and social infrastructure, to accommodate the displaced population.

The total land area of Maldives is estimated to be 298 sq. km. The land area of all administrative islands total 118.13 sq. km. which represents 39.64% of the habitable land area. The coral island ecosystem is extremely fragile and dynamic and susceptible to changes in sea temperatures and sea levels. Many islands change in shape and size twice a year during the South West and North East Monsoons, when large quantities of sand are transported and deposited on the opposite shores, by the prevailing sea currents. Several islands experience extensive beach erosion and saline intrusion into the shallow freshwater lens, causing loss of vegetation and damage to crops.

**Figure 1.6: Distribution of Inhabited Islands by Size**

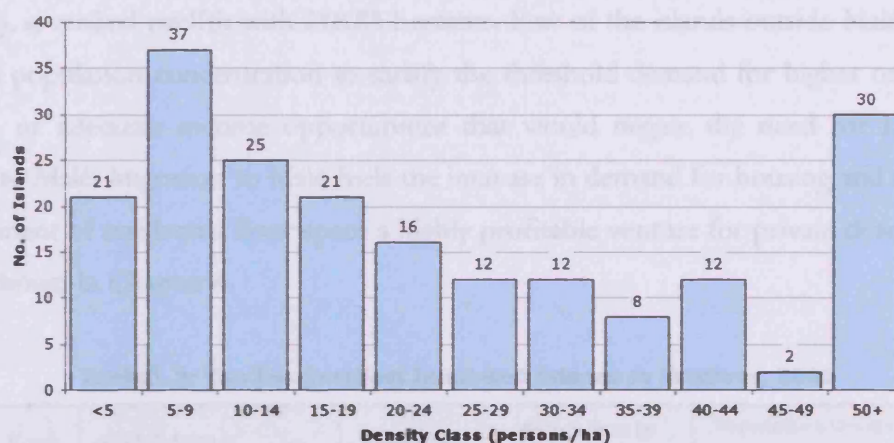


Source: MPND (2001a) Population and Housing Census of Maldives 2000

Figure 1.6 above shows the distribution of inhabited islands by size. In terms of physical size, only 31 (15.82%) islands are larger than 100 hectares (1 sq. km.), while 138 (70.41%) are smaller than 50 hectares (0.5 sq. km.). Between 2000 and 2002, the land areas of 23 island settlements were increased through reclamation, mainly by using fill material from excavation and dredging works carried out to improve harbours and access for vessels. In, fact the total land area of all inhabited islands increased by 1.17% nationally,

during that period. The first phase of Hulhumalé, an artificial island created within the Hulhulé-Farukolhufushi reef, added 195 hectares in 2002.

**Figure 1.7: Distribution of Inhabited Islands by Population Density**



Source: MPND (2001a) Population and Housing Census of Maldives 2000

Figure 1.7 shows the distribution of islands by population density in 2000. Only 30 islands (15.31%) have densities above 50 persons per hectare. On the other hand, 120 (61.22%) have densities less than 25 persons per hectare. Sparsely distributed populations on small islands scattered throughout the archipelago make delivery of essential social services and physical infrastructure both costly and time consuming. As a result, migration to larger settlements becomes an increasing necessity in order to obtain basic social services such as education and health.

**Table 1.2: The Largest Islands in Maldives, 2000**

Rank	Atoll	Island	Status	Area (ha)	Population in 2000	Population Density (persons/ha)
1	L	Gan	Inhabited/Industrial	516.59	2,244	4.34
2	S	Hithadhoo	Inhabited/Atoll Capital	467.30	9,461	20.25
3	Gn	Fuvah Mulah	Inhabited/Atoll Capital	420.00	7,528	17.92
4	L	Isdhoo	Inhabited	293.67	1,432	4.88
5	K	Kaashidhoo	Inhabited	276.49	1,572	5.69
6	S	Gan	Airport/Tourism	264.90	-	-
7	GDh	Gan	Uninhabited	263.59	-	-
8	HDh	Hanimaadhoo	Inhabited/Airport	259.47	1,009	3.89
9	HA	Baarah	Inhabited	248.80	1,270	5.10
10	HA	Filladhoo	Inhabited	225.60	659	2.92
12		Malé & Villingili	National Capital	218.83	74,069	338.48

Source: [www.planning.gov.mv/map/sp.htm](http://www.planning.gov.mv/map/sp.htm)



Table 1.2 lists the largest islands in Maldives with their size in hectares, population and population density. Apart from Malé, all other islands among them have very low population densities and possess immense potential for population expansion. Malé Capital Area, which in addition to Malé Island includes the island of Villingili (also referred to as Vilimalé), is ranked twelfth with 218.83 hectares. Few of the islands outside Malé have the required population concentration to satisfy the threshold demand for higher order social services, or adequate income opportunities that would negate the need for families to migrate to Malé. Migration to Malé fuels the increase in demand for housing and makes the development of residential floor space a highly profitable venture for private developers, as will be shown in Chapter 4.

**Table 1.3: The Ten Smallest Inhabited Islands in Maldives, 2000**

Rank	Atoll	Island	Area (ha)	Population in 2000	Population Density (persons/ha)
1	M	Maduvvaree	3.10	451	145.48
2	V	Rakeedhoo	4.00	237	59.25
3	HA	Hathifushi	4.10	150	36.59
4	R	Kan'dholhudhoo	4.40	2,717	617.50
5	M	Dhiggaru	4.61	876	190.02
6	Dh	Gemendhoo	4.70	322	68.51
7	ADh	Kun'burudhoo	4.90	384	78.37
8	B	Thulhaadhoo	4.97	1,941	390.54
9	K	Gulhi	5.50	623	113.27
10	Sh	Komandoo	5.96	1,525	255.87

Source: [www.planning.gov.mv/map/sp.htm](http://www.planning.gov.mv/map/sp.htm)

This is in sharp contrast to the ten smallest inhabited islands in Maldives shown in Table 1.3. Thulhaadhoo, with 390.54 persons per hectare, has a population density higher than that for Malé which stands at 338.48 persons per hectare. In addition to this island, many others are dangerously overcrowded, posing several environmental problems, especially depletion of freshwater aquifer, inappropriate disposal of solid waste, severe beach erosion, lack of natural vegetation and the shortage of open space for recreation. These environmental constraints combined with the lack of essential social facilities, jobs and services lead the population to migrate to the capital. But the heavy influx of migrants puts pressure on an already saturated housing market.

### 1.3 Government Administration

Until the 1950s, Maldives remained a Sultanate ruled by Kings and Queens. In 1953, a republican administration was proclaimed by Mohamed Amin Didi, the country's first President. However, within seven months, the President was deposed in a brutal uprising and the country reverted back to a Sultanate, with a powerful Prime Minister as the head of Government. The Maldives gained full independence from the British on 26 July 1965 and later that year joined the United Nations. After a public referendum which ruled overwhelmingly to abolish the Sultanate, Maldives has remained a constitutional republic since 1968, with an Executive President elected for a term of five years.

There is a unicameral parliament, the *People's Majlis*, with 50 independent members (42 elected by popular vote among the 21 constituencies – two each from each of the 20 atolls and from Malé – and 8 appointed by the President) who are also separately elected every five years. The President also appoints the Cabinet of Ministers, not necessarily from among the Members of the *Majlis*, and members of the judiciary. The *Majlis* must approve all legislation and is empowered to enact legislation without presidential approval. Constitutional and legal instruments for newly formed candidates to represent political parties are being formulated by the *Majlis*. Until they are enacted, candidates for the unicameral legislature run as independents. There is universal suffrage with all citizens aged 21 and over having the right to vote in elections. Women are eligible for candidature to elected bodies and all public positions, except that of Head of State, as per the current Constitution.

Most of the Government policies emanate from the Cabinet headed by the President, while the *People's Majlis*, whose Speaker is appointed by the President, is the legislative arm of the Government. As of 1 January 1998, a revised Constitution, with a stronger focus on civil liberties, decentralisation, transparency and accountability has been in force. According to the Constitution, a constitutional assembly, the *Special Majlis*, has to be assembled to make any amendments to the Constitution. This effectively doubles the members of the *Majlis*, in terms of elected and appointed representatives. All cabinet ministers who are neither elected as representatives of constituencies nor appointed by the President to the *Majlis* are also deemed to be members of the *Special Majlis*, according to the Constitution.

There is no recognised provincial or local government which is devolved either administratively or in terms of governance. All islands are headed by an Island Chief under an Atoll Chief both of whom are appointed by the Government and report to the Minister of Atolls Development. Elected Island Development Committees (IDC), Island Women's

Committees (IWC) and Atoll Development Committees (ADC) constitute an avenue for public participation in the development of the islands and atolls. However, the lack of public confidence in these representations has been exemplified by the fact that in 2004, nominations sufficient to carry out elections for all IDCs were made only in Faafu Atoll. In fact, more than 100 out of 201 islands did not satisfy the required nominations. Among the 77 islands in the most populated atolls, 55 islands were unable to proceed with elections because of low nominations.<sup>1</sup>

The capital Malé, which comprises the four old wards of Malé Island and the new fifth ward on the neighbouring island of Villingili, is administered by Malé Municipality, effectively a central government department under the Ministry of Home Affairs, and at present devoid of any local elected representation. However, the five ward offices of Malé have elected Ward Committees and Women's Committees assisting the work of Ward Offices who report to Malé Municipality, but they lack any power or influence over local policy or resource allocation. Rather, they act as enforcement bodies on such diverse areas as road cleansing and conformity to building regulations.

The first written constitution in Maldives was adopted in 1932; the present constitution came into force on 1 January 1998. Although broadly permitted by the Constitution, no political parties were allowed to function, until June 2005, because the Constitution does not contain the procedures and instruments for political parties to compete in elections, win them and form the next government. However, in February 2001, several dozens of people including academics, intellectuals, businessmen and members of parliament, handed a petition to the Minister of Home Affairs requesting permission to set up a political party. Permission was not granted and a number of signatories were allegedly detained. The matter was discussed in the *Majlis* on 17 June 2001, who decided against the Constitutional right by renouncing political parties for the time being, in the pretext of maintaining peace and stability deemed essential to sustained economic and social development. The decision has in 2005 being revoked unanimously by the *Majlis*, and political parties have been allowed to register under temporary legal provisions established by Presidential decree, as will be discussed later in this section.

For the presidential elections, the *Majlis* selects a single presidential nominee by secret ballot, from among several applicants who must be Sunni Muslim males, and is subsequently approved or rejected in a nationwide public referendum where a simple majority would secure a term of five years beginning on 11 November, the Republic Day.

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<sup>1</sup> Press article by Ismail Rasheed in *Havenu*' daily newspaper on 1 May 2004

The last presidential elections in 2003 had four presidential nominees. His Excellency Maumoon Abdul Gayoom who has been the President since 1978, was selected unanimously by the *Majlis* as the presidential candidate, and subsequently elected into office after winning 90.28% of the votes in the public referendum.

The President is both the head of state and head of government. The current incumbent is serving his sixth term without interruption. The President derives additional influence from his constitutional roles as the “supreme authority to propagate the tenets of Islam.” Citizens’ ability to change their government is considerably constrained, and the strong executive exerts undue influence over both the legislature and the judiciary, making the Office of the President the most powerful political institution. Constitutionally the President is also the Commander in Chief of the armed forces and the police. Furthermore, until 2004, he held the cabinet portfolios of the Minister of Defence and National Security and the Minister of Finance and Treasury, who automatically also becomes the Governor of the Maldives Monetary Authority which is the country’s central bank.

Maldives was never colonized; it was a British Protectorate from 1887 to 1965 during which period the colonial masters took care of defence and foreign affairs without any presence in the country. Therefore, unlike its South Asian neighbours, Maldives, when it gained independence, did not have a legacy of established legislative, judicial or administrative systems conducive to development. Rather, Maldives has a Muslim population and the laws of the country are consistent with Islamic *Shariah* law. Civil law is subordinate to *Shariah*, but civil law generally is applied in criminal and civil cases. Personal law, which includes family and inheritance laws are exclusively governed by *Shariah* law. Other legal areas, such as criminal law, contracts, and company law, are governed by laws enacted by the *Majlis* based on *Shariah* law. The existing Constitution does not provide for an independent judiciary, and the judiciary is subject to executive influence. In addition to his authority to review High Court decisions, the President influences the judiciary through his power to appoint and dismiss judges, which is not subject to confirmation by the *Majlis*. The President may also grant pardons and amnesties.

The Maldives is currently experiencing a huge political transformation, commensurate with the rapid developments in the economy. In June 2004, the President announced his suggestions for several constitutional amendments as part of a comprehensive reform package geared towards establishing the norms of a modern democracy in Maldives. These included making the judiciary, the legislature and the executive independent of each other; demarcating roles of head of state and head of government by creating the office of the Prime Minister; changing the way the President is appointed by allowing women an equal

opportunity to stand for office, stipulating a limit to the terms of office, and giving the electorate choice to vote from multiple candidates; abolishing the appointment of members to the *Majlis* by the President; promoting political pluralism and institutionalising the operation of political parties; widespread judicial reforms including the creation of a Supreme Court and a Supreme Judicial Council; consultation with *Majlis* in the appointment of Supreme Court Judges, Commissioner of Elections and the Auditor General; and facilitating public endorsement in the amendment of the Constitution.

Since several of these changes required the amendment of the current constitution, in June 2004, a *Special Majlis* was elected for this task, as stipulated by the Constitution. Other reforms that have taken place include the separation of the police and the armed forces on 1 September 2004, with the former assuming a civilian authority under the Ministry of Home Affairs, and the President relinquishing the portfolios of Minister of Defence and National Security and that of Minister of Finance and Treasury, which he held since 1978.

The Government confirmed its commitment to the reform agenda by sending the matter of political pluralism to the *Majlis* for reconsideration in June 2005, just four years after they had voted by an overwhelming majority against allowing the formation and functioning of political parties. A unanimous U-turn by the *Majlis* on 2 June 2005, and a subsequent presidential decree, until the necessary legislation was enacted, allowed registration and functioning of political parties in Maldives paving the way for political pluralism – one of the basic tenets of a modern democracy. However, forthcoming legislation on political parties and relevant amendments to the Constitution will determine how the newly established political parties will function in safeguarding democratic governance, and in particular, forming the next government. Whist the significance of these changes on housing related legislation cannot as yet be estimated, as a central focus of family life, it is highly likely that housing issues will become a prominent political forefront for all parties.

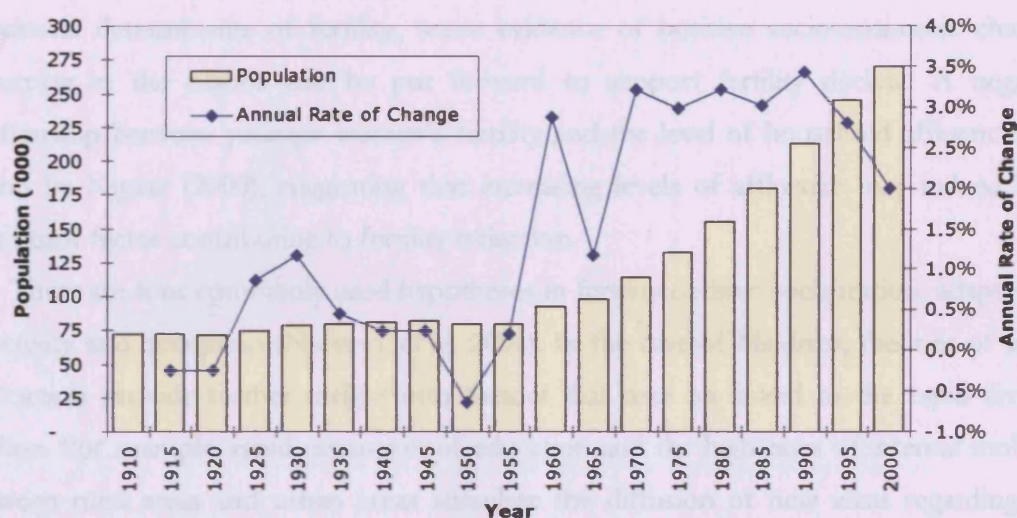
## **1.4 Population and Demographic Characteristics**

The first population data for Maldives, recorded in 1911 showed that by then the population was only 72,237 in the country. It reached 100,000 fifty-four years later, in the year 1965 during which Maldives gained independence from the British after being a protectorate for 78 years. The population doubled to 200,000 twenty-four years later, in 1989, and is expected to reach 300,000 in 2006, just 17 years later. From 1911, the population took 66 years to double in 1977. Although the population growth rate has



slowed down during the last few years, it took just 27 years to double again in 2004. At current growth rates of 1.71% per annum, it will take more than 40 years for the population to double.

**Figure 1.8: Quinquennial Population of Maldives 1910-2000**



Source: Derived from MPND (2001a) Statistical Yearbook 2001

Figure 1.8 above shows quinquennial populations from 1910 to 2000 along with annual rates of change using census data. Whilst the stabilisation in population growth during the five years prior to 1920 and the sharp reduction during the late 1940s can be attributed to the hardships of the World War I and World War II respectively, the sharp decline in growth rates during the early 1960s can only be attributed to enumeration errors.

The five-yearly census figures indicate that the average annual rate of national population growth has slowed down steadily in the last 10-15 years. The early eighties saw an increase in annual population growth from 3.2% prior to 1985 to 3.4% during 1985-90 due to improvements in health care reducing infant and child mortality rates, while lower death rates increased life expectancy to 70 and 71 for men and women, respectively, by 2003 (MPND, 2005a). While this trend continued, since the mid 1990s, the prevalence of contraceptives and family planning advice has reduced total fertility rates and family sizes. Contraceptive user rate increased from 16.6% in 1996 to 22.1% in 2003 throughout the country (MPND, 2004a). The total fertility rate (TFR) has declined from 6.4 in the period 1985-1990 to 2.8 in the period 1995-2000 (UNESCAP, 2002).

A sharp reduction in the population growth rate and changing age structure during the past 15 years can also be attributed to the precipitous fall in fertility in Maldives. The annual population growth rate declined from 3.4% during the period 1985-1990, to 2.8%

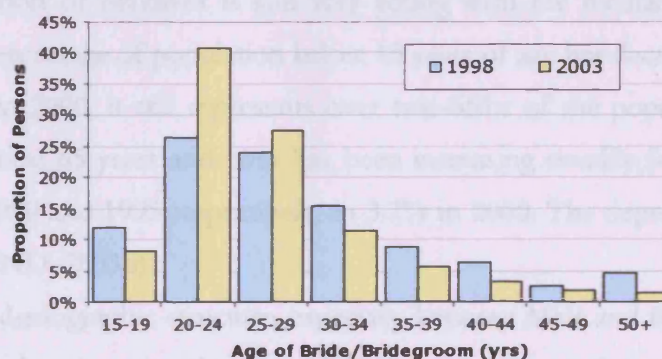


during 1990-1995, and to 1.9% during 1995-2000. Of particular importance, the proportion of child population aged 0 to 4 has reduced from 18.3% in 1985, to 15.1% in 1995 and to 11.44% by 2000.

There is, however, a need to provide some justification for the rapid fertility decline in Maldives. While the absence of a fertility survey in Maldives prohibits the analysis of the proximate determinants of fertility, some evidence of positive socio-economic changes occurring in the islands can be put forward to support fertility decline. A negative relationship between younger women's fertility and the level of household affluence was found by Niyaz (2000), suggesting that increasing levels of affluence may indeed be a significant factor contributing to fertility reduction.

There are four commonly used hypotheses in fertility decline: socialization, adaptation, selectivity and disruption (Naseem, et al, 2004). In the case of Maldives, theories of social interaction provide further insight into factors that may be linked to the rapid fertility decline. For example, rapid expansion of education and the high rates of internal mobility between rural areas and urban areas stimulate the diffusion of new ideas regarding the benefits of small families, thereby increasing the speed of the fertility decline across the country. High rates of rural to urban migration may have therefore contributed to a rapid fertility decline in Maldives.

**Figure 1.9: Change in Marriage Age in Malé, 1998-2003**



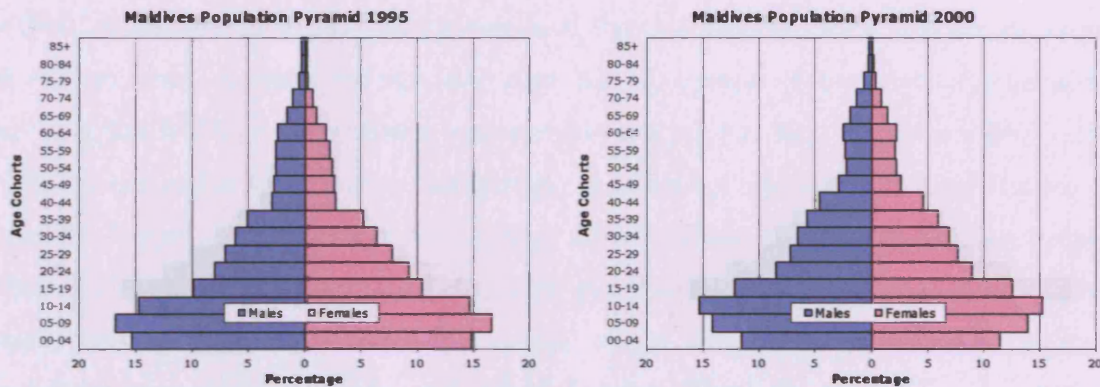
Source: MPND (2004a), Statistical Yearbook of Maldives 2004

Wider availability of educational opportunities and subsequently the longer retention of females in full time education have also helped push up the median age of marriage and the age of motherhood. Figure 1.9 above shows that over the six year period from 1998 to 2003, the proportion of persons marrying in their teens reduced from 11.9% to 8.1%. In fact, while just over half (50.3%) married between ages 20 and 29 in 1998, by 2003 this proportion has increased to over two-thirds (68.2%) among those in Malé (MPND, 2004a).



Congested living conditions, especially in Malé and other densely populated islands together with the perceived reduction in need for larger families have also contributed to this trend.

**Figure 1.10: Comparison of Maldives Population Composition, 1995 & 2000**



Source: MPND (2003b), Statistical Yearbook of Maldives 2003, Table 3.2: Population by Age & Sex, Census 1995 & 2000 (NB: Age cohorts aggregated to equal classes)

A comparison of the national population pyramids for 1995 and 2000, shown in Figure 1.10, indicates the slowing down of birth rates by the narrowing of the bottom strip of the population pyramid which represents the 0-4 age cohort, substantiating the drop in fertility rates mentioned above. In fact, crude birth rate decreased from 27 to 20 per thousand, over the five year period.

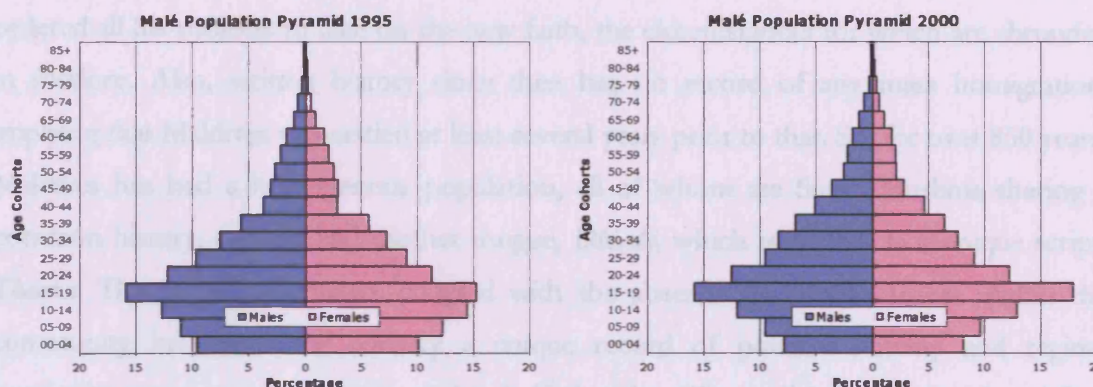
The population of Maldives is still very young with the median age at 19 in 2000. Although, the percentage of population below 15 years of age has decreased from 46.4% in 1995 to 40.7% in 2000, it still represents over two-fifths of the population. At the other end, the population 65 years and over has been increasing steadily from 2.5%, 2.7% and 3.1% in 1985, 1990 and 1995 respectively, to 3.7% in 2000. The dependency ratio in 2000 was at 81% (MPND, 2003b).

Changes in demographic structure, especially between Malé and the rest of the nation, impinge on the housing situation on Malé. In contrast to the reduction in national population growth rate, that for Malé from 1995 to 2000 remained relatively high at 3.4 percent per annum, largely as a result of continued in-migration from the atolls, and was expected to slow down to 2.5% per annum to reach 120,000 in 2020 (MPND, 2002). By the year 2000, Malé already hosted 27.4% of the nation's population. Shakir (2002) estimated that the average household size will fall from 8 in 2000 to about 6 in 2020. During the same period, the number of households would have doubled, adding an additional 10,000 households, which would have to be accommodated in the Malé Urban



Region (Shakir, 2002). However, the onset of the tsunami at the end of 2004 drastically changed people's perceptions to living in small isolated islands. As a result, a higher rate of in-migration has resulted in an even greater demand for dwelling space in Malé.

**Figure 1.11: Comparison of Malé Population Composition, 1995 & 2000**



Source: MPND (2001c), Statistical Yearbook of Maldives 2001, Table P-01: Census Population by Sex and Inter-Census Variation of Population and Locality for 2000 and 1995 Censuses (NB: Age cohorts aggregated to equal classes)

The population pyramids for Malé, shown in Figure 1.11, show that the narrowing of the base between the two censuses is not as significant as for the whole nation. However, unlike the national population pyramid which shows five year bands pushing up the pyramid, the relative proportion of the different bands for Malé changed little between 1995 and 2000. In fact, the widest bands of the pyramid in both 1995 and 2000 belong to the population in the 15-19 age group who comprise students who have migrated to Malé for upper and higher secondary education, still largely unavailable in many other islands.

Despite huge strides in establishing secondary level education in more atolls, standards of delivery and student achievement vary considerably between Malé and the outer atolls. As a result, according to education professionals, as affluence among atoll populations increase, families keep sending their children for secondary education in Malé, despite harsh living conditions there. In fact, more and more families are even sending their children abroad for secondary and higher secondary education.

Wider availability of educational opportunities in outer islands will undoubtedly make a significant difference in the proportion of population in these age groups living in Malé. However, without a significant increase in employment and livelihood opportunities for the more educated youth in the outer islands, it is doubtful whether they will stay there regardless of where they are educated. Furthermore, the in-migration of population in age groups still in full time education impinges heavily on housing affordability of in-migrants in Malé.

## 1.5 Socio-Economic Setting

### 1.5.1 Culture and Tradition

Historians dispute over whether Islam was brought by a Moroccan or a Persian. However, it is believed that the reigning Sultan converted to Islam, from Buddhism, in 1153 and ordered all his subjects to take on the new faith, the circumstances for which are shrouded in folklore. Also, written history since then has no record of any mass immigration, implying that Maldives was settled at least several years prior to that. So, for over 850 years, Maldives has had a homogenous population, all of whom are Sunni Muslims sharing a common history, culture, and mother tongue, *Dhivehi*, which is written in a unique script, *Thaana*. This social inheritance coupled with the absence of divisive forces within the community has given the country a unique record of political stability and regime continuity over more than two and a half decades. The political and social stability, together with rapid economic development, stimulated the accumulation of social capital within island communities and encouraged an inclusive approach to development at the national and the local level. However, in the absence of avenues for investing the accumulated financial and commercial capital, many island families continue to migrate to Malé where the potential for successful investment in trade and related services are higher.

Adult literacy rates have always been relatively high in Maldives compared to her South Asian neighbours, and currently stand at 98.94% (MPND, 2005). Maldivian society is inherently patriarchal, largely as an influence of Islam and the South Asian culture. However, women enjoy equal opportunities and play a significant part in the economy of Maldives, despite a relatively low labour force participation rate of just 37.4%. The proportion of female headed households was reported to be 46.27% in the year 2000. The fact that census data is collected on a *de facto* basis, i.e., counting the person where present at the time of enumeration, could be attributed to the large proportion of female headed households, where the male breadwinner often works away from their home islands, especially in tourist resorts, and may not be an indication of female empowerment and emancipation, or the social disintegration of families, that the figures may suggest.

Observers agree that Maldivian women are among the most emancipated in South Asia and the Islamic world (World Bank, 2003). There is no institutional discrimination along gender lines in access to education and health services or for jobs in the public sector. School enrolment rates for girls and boys are almost the same and very high, as are the adult literacy rates. Although only two out of 42 elected parliamentary seats are occupied by women, many are employed in the public sector and in manufacturing, and they account

for 72 percent of active persons in agriculture (MPND, 2005b). Recent changes to the Cabinet in July 2005 include just three women ministers out of a total of 21, with a further three appointed as deputy ministers.

### **1.5.2 Development Constraints**

Like several other small island developing states (SIDS), economic development in Maldives is constrained by the absence of land based mineral resources, the limited scope for expansion of the agriculture sector, and vulnerability to natural disasters and environmental hazards. This vulnerability was tragically exposed on 26 December 2004, when the whole nation was affected by a huge tsunami generated by an earthquake off the coast of Sumatra in Indonesia measuring 9.0 on the Richter scale. Because of the unique geophysical structure of coral atolls, the force of the waves was absorbed by the reefs and the magnitude of waves were smaller due to the sieving effect of islands surrounded by deep sea. Thus the extent of damage was much smaller than neighbouring countries with larger continental land masses. Despite that, due to the low-lying nature, several islands in Maldives were totally inundated and completely destroyed. Out of 87 tourist resort islands, 19 were completely shut down, and of the 199 inhabited islands, two-thirds were affected to varying extents, and 13 had to be completely evacuated due to the extent of destruction.

The human cost of the disaster was comparatively low with 82 confirmed dead with another 26 unaccounted for. Over 1,300 people were injured and 15,000 people (more than 5% of the population) were rendered homeless. Structural and physical destruction were widespread, with a total of 53 inhabited islands severely affected. Jetties, harbours and coastal structures were destroyed and 26 islands had their power generation facilities destroyed. A total of 188 islands lost communication links for 11 hours. A quarter of the islands lost all their fishing fleet ruining their asset base and livelihood.

The tourism sector, which contributes to over 30% to GDP directly and 70% overall to the national economy, was severely crippled. Occupancy levels dropped from 100% to 32% instantly as many tourists cut short their holidays and departed while new arrivals were cancelled. Several months later, the signs of recovery are still painfully slow. Tourist arrivals during the first 5 months of 2005 showed a decline of 51% over the same period in 2004<sup>2</sup>. However, by the end of 2005 the tourism sector had dramatically bounced back and tourist arrivals and occupancy levels had recovered to pre-tsunami levels. Figure 1.12 below shows tourist arrivals in 2004 and 2005. As can be seen, 2005 started with few arrivals,

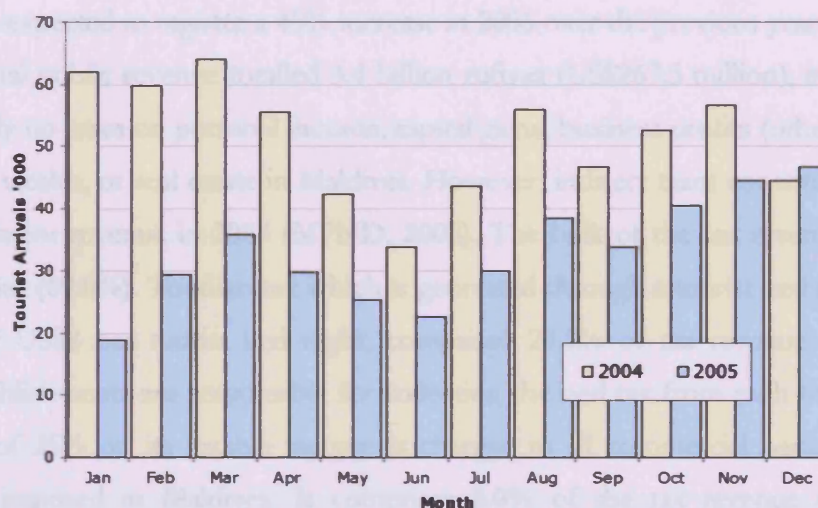
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<sup>2</sup> Source: Ministry of Tourism (June 2005)



initially because of safety concerns of tourists and later on, because of reduced bed capacity due to damage to the resorts. Out of the 21 resorts that were closed due to tsunami damage, 16 were repaired and operational by December 2005 resulting in tourist arrivals exceeding that for December 2004.

**Figure 1.12: Tourist Arrivals, 2004-2005**



Source: MPND (2005c), Statistical Yearbook of Maldives 2005

According to a needs assessment report prepared jointly by the World Bank, the Asian Development Bank and the UNDP, the financial impacts of tsunami on the economy are estimated to be US\$ 470 million, which represents 62% of the total national GDP, setting the development levels on the islands back by two decades. What is more, the disaster which crippled the economy and destroyed the livelihoods of many, struck within days of the graduation of Maldives from the list of Least Developed Countries endorsed by consensus of the UN Economic and Social Council (ECOSOC) in December 2004. In terms of impacts on the Government's long-term development strategy, the tsunami has reinforced the established policy of encouraging voluntary population movements to less vulnerable islands, which has now assumed even greater urgency than in the past. This population consolidation policy aims to mitigate the risks of future tsunamis and rising sea levels, help realize economies of scale in the provision of public and private services in the atolls, strengthen service quality in the atolls, improve welfare, and help retain the population in the atolls (World Bank–ADB–UNDP, 2005).

The establishment of the Department of Inland Revenue (DIR) under the Ministry of Finance and Treasury in 1996 was the founding stone for the establishment of a tax regime.

It is responsible for providing revenue policies and collecting most of the government revenue. Currently the department collects about 35% of all government revenue.

Due to the devastating impacts of the Asian Tsunami, the economy declined to negative 4.5% in 2005 compared to 2004, largely because of the drastic reduction in tourist arrivals. As a result, in 2005, the contribution of tourism to the economy experienced a decline of minus 33% over 2004, but has recovered to pre-tsunami levels by the end of the year, and is expected to register a 45% increase in 2006 over the previous year.

The total public revenue totalled 3.4 billion rufiyaa (US\$267.5 million), in 2004. There are currently no taxes on personal income, capital gains, business profits (other than a bank profit tax), wealth, or real estate in Maldives. However, indirect taxes constituted 48.1% of all Government revenue in 2004 (MPND, 2005). The bulk of the tax revenue comprised import duties (69.0%). Tourism tax which is generated through a tourist bed tax levied at a flat rate of US\$8 per tourist bed night, comprised 24.9% of tax revenue in 2004. The tourist establishments are responsible for collecting the bed tax from each tourist. A bank profit tax of 25% on its taxable income is charged to all commercial banks as the only direct tax imposed in Maldives. It comprises 3.0% of the tax revenue in 2004. The remaining 3.2% of tax revenue consisted of other indirect taxes which include vehicle and vessel license fees and stamp duty.

**Table 1.4: Government Revenue, 2004**

Component	Value (million Rf)	Proportion (%)
Total Revenue and grants	3,424.7	100.0%
Total Revenue	3,351.8	97.9%
Current Revenue	3,331.1	97.3%
Tax Revenue	1,647.2	48.1%
Non-tax Revenue	1,683.9	49.2%
Capital Revenue	20.7	0.6%
Grants	72.9	2.1%

Source: MPND (2005) Statistical Yearbook 2005, Table 13.3

Table 1.4 shows a summary of Government revenue in 2004. Dividends from state-owned enterprises (SOEs) and resort lease rents were the principal sources of non-tax revenues, accounting for 32.9% and 34.1% of non-tax revenue, respectively. The rest comprised royalties, confiscated property, fines, penalties and administrative charges (32.9%). Grants shown in the figure comprise financial aid, and thus exclude those for direct expenditure from donors.

External donor assistance has always been an important element of the development process. For example, in recent years, up to 70 percent of total development expenditure

was financed by external resources with the grant component being significantly high. In addition to official aid flows, a number of foreign NGOs have also provided substantial assistance to Maldives. However, prior to the Asian Tsunami 2004, none of these have had any programmes on shelter promotion or provision. While the Government has concentrated on providing basic social services and the provision of physical infrastructure, the private sector has played a key role in the development of tourism, distribution, trade, construction, transport and fisheries, among other activities. In fact, housing development has essentially been a privately financed process in the absence of institutional finance (until the establishment of HDFC in 2004) and the limited quantity of public housing created.

The public sector consists of the Government and SOEs which play a key role in the economy. Operations of SOEs cover a wide range of activities including buying and distributing a large share of imports, fisheries operations, tourism, banking activities, air and sea transport, international shipping, communications and the generation and supply of electricity and desalinated water. Out of the 16 SOEs in 2004, 9 were fully state owned enterprises; others ranged from 25% to 92.5% ownership by the Government. In 2004, the dividend from 16 SOEs provided Rf 554.7 million (US\$ 43.3 million). Dividends from Dhiraagu, one of the two telecom companies in the Maldives, currently 45% owned by Cable and Wireless, amounted to 29.9% of this component of revenue. Fiscal revenues constitute about 48 percent of taxes and the balance largely of profit transfers from public enterprises. Despite the absence of income taxes, because of low wages and high expenses on essential urban services, most families on Malé do not have sufficient savings to invest in housing construction.

### **1.5.3 The Financial Sector**

The financial sector of Maldives is very narrow and dominated by the banking sector, which consists of one locally owned commercial bank and branches of three, South Asian partly state-owned commercial banks and a branch of an international bank, the HSBC. Non-bank financial institutions in the country consist of a provident fund, a finance leasing company, two insurance companies registered in the country, and some agents for overseas insurance companies. Maldives Monetary Authority (MMA) was established in mid-1981 under the Maldives Monetary Authority Act (1981) to act as the Central Bank of Maldives.



To this effect, the MMA issues and regulates the availability of the national currency, rufiyaa<sup>3</sup> (abbreviated Rf<sup>4</sup>), and promotes its stability; licenses, supervises and regulates institutions in the financial sector; formulates and implements monetary policy; and, advises the Government on issues relating to the economy and financial system in order to foster a monetary environment conducive to the orderly and balanced economic development of Maldives. While MMA is the primary source of domestic financing for the Government's fiscal operations, at present the commercial banks are the principal institutions for mobilizing savings and for providing credit and foreign exchange to the private sector. However, with high interest rates and short repayment periods, the credit provided by commercial banks is not suited for conventional approaches to the financing of housing development.

Maldives has an open economy, with a narrow export base but high dependence on imports for most of its economic activities. Consequently, foreign merchandise trade normally records a large deficit; imports have averaged around 61% of GDP in the last 5 years, while domestic exports, consisting primarily of fish and fish products have ranged between 11-15% of GDP. Services and transfers have shown a net surplus that has averaged around 34% of GDP in recent years, with service receipts being dominated by tourism and related activities. Nevertheless, there is also a significant outflow of transfers from the economy owing to the large expatriate work force that is resident in the country. Official medium and long-term debt flows and inflows of capital for direct investments dominate the capital account of the balance of payments; as no portfolio investments flow into Maldives yet, on account of the lack of a formal capital market. External debt stock of the public sector and the banking system averaged around 38% of GDP during 1997-2000, with a large portion of official debt being received on highly concessionary terms due to the LDC status that Maldives enjoys. Statistics on the level of indebtedness of the private sector at a given point in time are not readily available.

There is no exchange control legislation in Maldives. Both residents and non-residents may freely import and export capital through the foreign exchange market. Residents do not require permission to maintain foreign currency accounts either at home or abroad.

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<sup>3</sup> The Maldivian rufiyaa (Rf) is pegged to the US dollar at a market-reflective rate. The current selling rate of US\$ is Rf 12.75 and the buying rate is Rf 12.85. Thus the mid-exchange rate used throughout in this thesis is 1US\$ = Rf 12.80. On 21 July 2005, the selling and buying rates of Sterling Pound in the Maldives were Rf 21.2759 and Rf 22.3397 respectively (source: <http://www.mma.gov.mv/er.php>).

<sup>4</sup> The most commonly used symbols for the rufiyaa are MRF and Rf. The ISO 4217 code for Maldivian rufiyaa is MVR. One rufiyaa is equal to 100 laari. Rufiyaa is derived from the Hindi word rupayā, ultimately from Sanskrit rupya (wrought silver). (Source: [en.wikipedia.org/wiki/Maldivian\\_rufiyaa](http://en.wikipedia.org/wiki/Maldivian_rufiyaa))

There is no distinction made between foreign national or non-resident accounts held with the banks operating in Maldives. Inward direct foreign investments require prior approval of the Government. However once permission has been granted, there are no restrictions on transferring of profits. Therefore, there is potential for foreign investors to finance housing development in Malé should it be commercially attractive. At the same time in the absence of suitable avenues for investment in Maldives, locals with excess capital can invest overseas for greater dividends than they can earn at home.

The Maldivian economy is highly globalised with a trade-GDP ratio of 203%. The revenue earnings from the country's export growth have been utilized sensibly to promote investment in human development and infrastructure. The prioritisation of human development has raised the Human Development Index (HDI) of Maldives well above all Least Developed Countries (LDCs) and all of her South Asian neighbours. According to the Sixth National Development Plan (NDP6), such HDI indicators provide Maldives with a platform for enhancing the skills of its population and equipping it to actively participate in the IT revolution currently dominating the global economy (MPND, 2001b).

The country's GDP growth rate increased from an average of 6.8% between 1991 and 1995, to 10.2% in 1997, but declined to 4.8% in 2000. The total GDP increased from Rf 5,154 million (US\$ 438 million) in 1997 to Rf 6,278 million (US\$ 533 million) in 2000. While inflation remained low, the growth in the money supply slowed since 1995 but kept pace with the growth of the economy. The country's debt as a percentage of GDP declined from 59% in 1996 to 51.6% in 1999. These developments were accompanied by an increase in the country's per capita GDP, in real terms, from Rf 18,706 (US\$ 1,589) in 1996 to Rf 23,132 (US\$ 1,965) in 2000 (MPND, 2001b).

Inflation in Maldives has been moderate while savings, investments and revenue-GDP ratios have been well above the LDC average and comparable to her South Asian neighbours. GDP growth has been steady and robust and per capita income has doubled over the last decade (MPND, 2001b). In fact, in the UNDP Human Development Report 2004, Maldives ranked 84, with a Human Development Index (HDI) of 0.752, equal to that of Peru and Turkmenistan, lying just below the Philippines, Armenia and the Fiji (UNDP, 2004). The HDI is devised as a measure of a country's achievements in three aspects of human development: longevity, knowledge, and a decent standard of living. Longevity is measured by life expectancy at birth; knowledge is measured by a combination of the adult literacy rate and the combined gross primary, secondary, and tertiary enrolment ratio; and standard of living is measured by GDP per capita (PPP US\$). Table 1.5 shows these indicators and the HDI for Maldives with those for the three countries above and below it.

**Table 1.5: Human Development Index for Maldives**

HDI Rank	Country	Life Expectancy at Birth (Years) 2002	Adult Literacy Rate (%) 2002	Combined Gross Enrolment Ratio (%) 2001/02	GDP Per Capita (PPP US\$) 2002	Human Development Index
81	Fiji	69.6	92.9	73	5,440	0.758
82	Armenia	72.3	99.4	72	3,120	0.754
83	Philippines	69.8	92.6	81	4,170	0.753
<b>84</b>	<b>Maldives</b>	<b>67.2</b>	<b>97.2</b>	<b>78</b>	<b>4,798</b>	<b>0.752</b>
85	Peru	69.7	85.0	88	5,010	0.752
86	Turkmenistan	66.9	98.8	81	4,300	0.752
87	St. Vincent & the Grenadines	74.0	83.1	64	5,460	0.751

Source: UNDP (2004) Human Development Report 2004, p 140

### 1.5.4 Finance and Investment

Financial sector growth and reform in Maldives is constrained currently by the inadequacy of institutional capacity; the weakness of legal infrastructure; the lack of financial instruments; and, the absence of a dynamic banking system (MPND, 2001b). In fact the financial system governing the Maldivian economy remains under-developed. The four commercial banks that operate currently serve as deposit banks, providing short and long-term credit to the private sector. No specialized financial institutions existed to meet the investment needs of tourism, agriculture and fisheries or trade. And until 2004, when the Housing Development Finance Corporation was established, institutionalised housing finance was unavailable. The country also lacks a full-fledged capital market to help direct household savings into productive investment. Therefore capital investments are being financed on rather unfavourable financial terms, eroding value retention in the enterprise.

Until recently, the average Maldivian had little opportunity to enter the capital market either as a saver or as an investor. At best, those with surplus funds placed it on fixed deposit with one of the commercial banks which yielded a mere 4-5 percent per annum as interest. As a result, a large volume of household savings, which in more advanced financial systems provided the lifeblood of a broad-based capital market, remained untapped for developing the Maldivian economy. The absence of any institutional mechanism to mobilize household savings has ensured that the great majority of the population cannot effectively participate in the more dynamic sectors of the economy as investors. At the same time, local entrepreneurs faced serious difficulties in obtaining investment finance due to the lack of institutions that were able and willing to assist them. Consequently, most

local entrepreneurs were unable to make large investments or were forced to seek partnerships with foreigners on terms that were not necessarily favourable to the locals.

As a first step towards the long term development of a Stock Exchange, a Securities Trading Floor (STF), where share trading takes place, was inaugurated in April 2002. It functions under the Capital Market Development Section (CDMS) of the Maldives Monetary Authority (MMA). Table 1.6 below shows the share transaction statistics updated on 2 August 2005. In terms of trading performance at the middle of June 2005, the Maldives Stock Market Index (MASIX) stood at 297.98. Inclusive of the month's trading, the total cumulative turnover of the STF reached Rf 4,078,226 (US\$ 318,611) while the market capitalisation reached Rf 1,559 million (US\$ 121.8 million) by the end of May 2005.<sup>5</sup>

**Table 1.6: Share Transaction Statistics, 14 April 2002 – 2 August 2005**

Company	Number of trades	Number of shares traded	Value of shares traded (Rf)	Highest Traded Price (Rf)	Lowest traded Price (Rf)	Weighted Average Traded Price (Rf)
MTCC	346	3,526	850,309	600	150	241.15
BML	139	1,878	1,705,775	1,650	585	908.29
STO	140	2,178	1,709,325	1,200	400	784.81
<b>TOTAL</b>	<b>625</b>	<b>7,582</b>	<b>4,265,409</b>	-	-	-

Source: Securities Trading Floor website - <http://www.maldivesstockexchange.com.mv> (updated 2/08/2005)

However, the activities of the Securities Trading Floor are restricted by the small number of public companies and the limited trading of shares. Bank of Maldives PLC, State Trading Organisation PLC, and Maldives Transport and Contracting Company PLC, are the only three public companies selling shares, with the total volume of shares traded after three years of its operation being under 3.7 million rufiyaa (US\$ 289,000). With such a limited volume of shares, trading in securities does not offer a worthwhile investment for entrepreneurs with surplus capital.

### 1.5.5 Economic Development Thrusts and Challenges

The economy is heavily dependent on fisheries and tourism, which are the major sources of foreign exchange earnings and government revenue, and which together account for about 40 percent of gross domestic product. In terms of employment, these two sectors alone account for more than a third of total employment, according to the results of the 2000 census (MPND, 2001a).

<sup>5</sup> Securities Trading Floor: *Stock Market Monthly Report, May 2005*

The economy of Maldives has grown exponentially in the last few decades, with an overall average growth rate of 7.2% over the last decade. After a brief blip in 2001 and 2002, the economy recovered to register a growth rate of 6.8% in 2003 followed by 8.4% in 2004. The two engines of growth are the diversification of the traditional fisheries sector and rapid developments in the 33-year old tourism industry. The revenue from tourism has been, by developing country standards, well managed in Maldives. With the exception of a short episode of macro-economic instability in 1991-1993 due to a collapse in export earnings, the macro-economic indicators remained sound over the past decade.

Fisheries have always been the mainstay of the economy, and remain the principal source of income in the rural atolls. Most of the male population is engaged in the fishing industry, the catch consisting mainly of tuna and bonito. The expansion of fisheries has slowed in the 1990s, with the total number of fishing boats decreasing as crafts were converted for tourist transport. Assisted in particular by Japanese and UNCDF grants, and a line of IDA credits, almost all of the traditional sailing fleet has been mechanized. Driftnet fishing is banned and fish are caught in the traditional way using pole and line or a cast line. Fisheries contributed around 10.7% of the GDP in 1990, and have been eclipsed by the rapid expansion of tourism as the largest sector of the economy during the last two decades. As a result, although the average annual fish catch has doubled to 160,000 metric tonnes from the 1990 levels, the contribution of fisheries to GDP hovers around 7-8%.

Until 1990, fish exports remained under the exclusive monopoly of the state owned Maldives Industrial Fisheries Company (MIFCO). In that year private sector firms were allowed to trade in dried/salted tuna. This was followed by liberalising trade in yellow-fin tuna in 1996 and trade in skipjack in 2000. The fish processing and exporting monopoly of MIFCO was abolished at successive stages starting in 2000. Greater competition following privatisation has resulted in an increase in export volume and diversification of exports into fresh/chilled tuna, including exports to the Japanese and East Asian sashimi markets (Athukorala, 2004). The production of larger capacity fishing vessels with chilling facilities has improved the capacity and freshness throughout the industry. A new national record by a single craft was set on 23 April 2005 when '*Asdhaanu*' with 27 crew weighed in 46.727 metric tonnes of fish to the privately owned Horizon Fisheries Complex in Maandhoo Island generating Rf 186,908 (US\$ 14,600) on a day's catch.<sup>6</sup>

The most significant economic change in recent decades has been the phenomenal growth of the tourist industry. Attracted by the remoteness and the pristine coral reefs for

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<sup>6</sup> News article by Mohamed Yooshau in *Haveru Daily*, 24 April 2005.



divers, many visitors from the industrialised world are lured to Maldives each year. Figure 1.13 below shows aerial views of typical tourist resorts in Maldives. Since 1972 when tourism began in Maldives, 87 uninhabited islands have been turned into tourist resorts, with a total capacity of 16,400 beds by August 2003 (Ministry of Tourism, 2004).

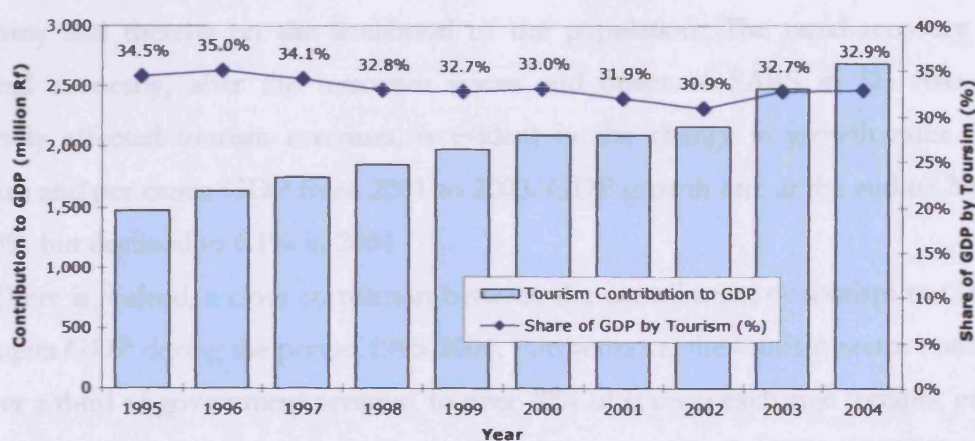
**Figure 1.13: Typical Tourist Resorts in Maldives**



Source: <http://www.inmaldives.com>

In 1999 there were 429,666 tourist arrivals, well over the national population, while the number of tourist arrivals exceeded 620,000 in 2004 after a minor blip in tourist arrivals in 2001 influenced largely by the worldwide terrorism and the SARS virus scares. However, the impact of the Asian tsunami on 26 December 2004 drastically reduced tourist arrivals, and six months later, by June 2005, the industry was still struggling to get back on its feet, with half the number of tourist arrivals during the first 5 months compared to that of 2004. However, the tourism sector has miraculously recovered by the end of 2005.

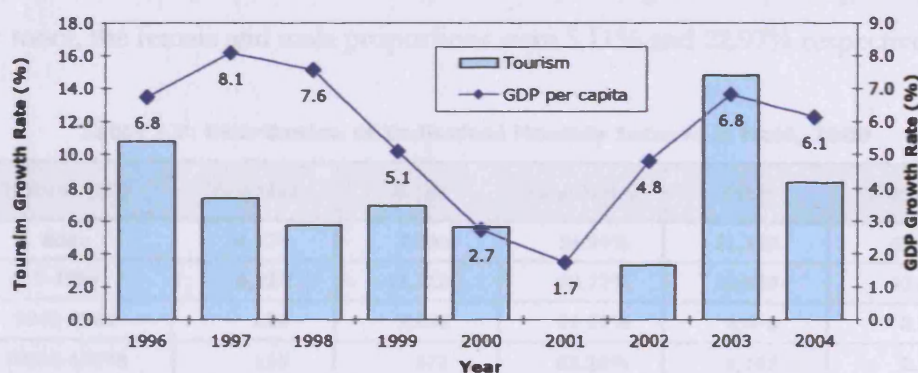
**Figure 1.14: Contribution of Tourism to GDP, 1995-2004**



Source: MPND (2005c) Statistical Yearbook of Maldives 2005, Table 16-1

Figure 1.14 shows the growth rate of the tourism sector for the period 1995-2004. Throughout the last decade, the total contribution of tourism to the GDP has increased steadily. Even though there is a slight decline in the percentage share of tourism revenue to GDP in 2001 and 2002, it recovered in 2003 and enjoyed a healthy 32.9% of the total GDP in 2004. There has also been a constant increase in per capita GDP, from US\$ 1,482 in 1995 to US\$ 2,208 in 2004, in real terms at constant 1995 prices. This represented an average growth rate throughout 1996-2004 of 6.8% and 5.4% for tourism contribution to GDP and per capita GDP, respectively. Today, Maldives has become one of world's most exclusive tourist destinations, and the industry is among the most lucrative with widespread positive impacts on the livelihood and quality of life of the population.

**Figure 1.15: Comparison of Growth Rates of Tourism and Per Capita GDP, 1996-2004**



Source: MPND (2005c) Statistical Yearbook of Maldives 2005, Table 16-2.

Figure 1.15 compares the growth rates of tourism revenue and per capita GDP for the period 1996-2003. As can be seen, the growth in tourism revenue is closely related to the growth in per capita GDP showing the huge influence tourism has on the national economy and thereby on the livelihood of the population. The rapid recovery of the national economy, after the terrorism scares and onset of SARS in SE Asia, which adversely affected tourism revenues, is evident in the change in growth rates of both tourism and per capita GDP from 2001 to 2003. GDP growth rate at the end of 2003 rose to 6.8% but declined to 6.1% in 2004.

There is, indeed, a close correlation between the contribution of tourism to GDP and per capita GDP during the period 1995-2004. Furthermore, the tourism sector contributed to over a third of government revenue, to over 70% of foreign exchange receipts, provided employment for 10,600 people, and was directly responsible for 33% of GDP in 2004. Thus any global or regional events that affect tourist arrivals would impact on the



economy. To sum up, the national economy is dependent on the health of the tourism sector which is vulnerable to any changes in the global economy.

### 1.5.6 Income Distribution and Labour Markets

In the absence of income tax in Maldives, there is no accurate record of individual or household income, either separately or collectively, that can be used as an indicator of housing affordability. According to Census 2000 which collected data on monthly income of every person over 15 years of age, from a total of 51,457 respondents, 21,727 (42.22%) stated that they earned nothing, while another 1,614 (3.14%) did not state how much they earned. Although the proportion of respondents did not differ much by gender, almost twice the number of females as males reported earning nothing. In fact, 38.7% of females, and 69.1% of males reported some income. Further, among those reporting Rf 5,000 (US\$ 390) or more, the female and male proportions were 5.11% and 22.97% respectively.

**Table 1.7: Distribution of Individual Monthly Income in Malé, 2000**

Income (Rf)	Females	Males	% of Males	Total	% of Total
None	14,134	7,592	34.94%	21,726	42.22%
1-4999	8,223	12,713	60.72%	20,936	40.69%
5000-9999	824	3,652	81.59%	4,476	8.70%
10000-14999	195	972	83.29%	1,167	2.27%
15000-19999	79	407	83.74%	486	0.94%
20000-24999	48	241	83.39%	289	0.56%
25000-29999	25	94	78.99%	119	0.23%
30000-34999	21	130	86.09%	151	0.29%
35000-39999	11	55	83.33%	66	0.13%
40000-44999	6	61	91.04%	67	0.13%
45000-49999	6	39	86.67%	45	0.09%
50000+	35	280	88.89%	315	0.61%
Not stated	855	759	47.03%	1,614	3.14%
<b>TOTAL</b>	<b>24,662</b>	<b>26,995</b>	<b>52.46%</b>	<b>51,457</b>	<b>100.00%</b>

Source: MPND (2001a), Population and Housing Census 2000 (NB: Income aggregated into equal classes)

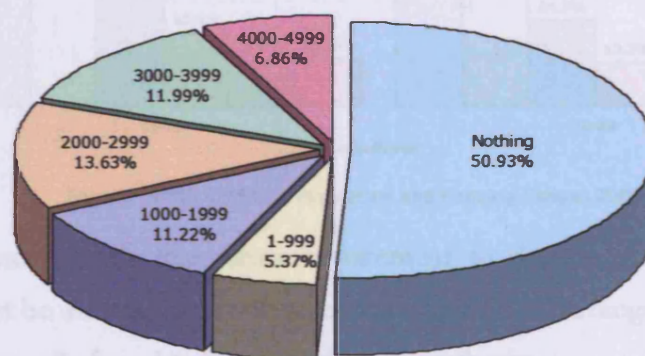
Table 1.7 shows the distribution of income among all residents 15 years and over, which represents 69.5% of the population of Malé. Among them, whilst two-fifths (42.22%) comprising twice the number of females as males, earned nothing, another two-fifths (40.69%) earned less than Rf 5,000 (US\$ 390) monthly. In this income class, there were three males for every two females. However, gender disparities reversed with income.



For income classes over Rf 5,000 (US\$ 390), between 79% and 91% represented males, confirming the economic dominance of males in Maldivian society.

A closer look at the income class earning less than Rf 5,000 (US\$ 390) reveals the distribution shown in Figure 1.16. Among those aged between 15 and 24, 70.52% were in full-time education or training, and therefore, earned very little. Also, close to three-fifths (58.23%) of those who earned nothing were within this age group. What is more, more than four-fifths (81.91%) of this age group earned less than Rf 1,000 (US\$ 78) monthly.

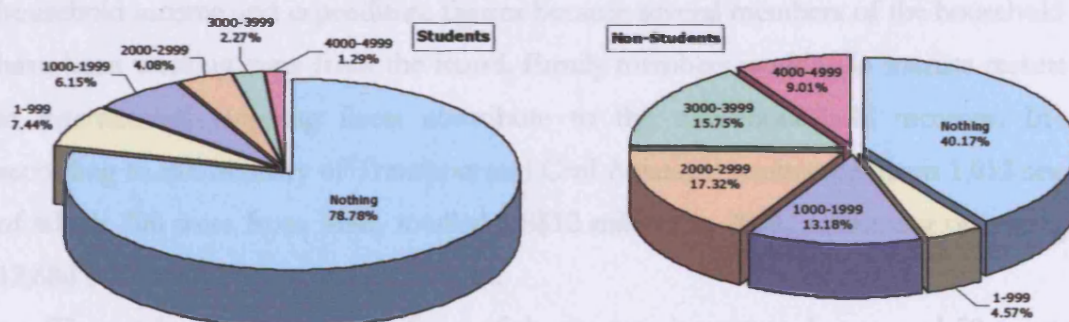
**Figure 1.16: Distribution of All Incomes < Rf 5,000 - Malé 2000**



Source: MPND (2001b), Population and Housing Census 2000

Figure 1.17 below compares incomes less than Rf 5,000 (US\$ 390) among students and non-students. While close to four-fifths of students did not earn anything, only two-fifths of non-students earned nothing.

**Figure 1.17: Comparison of Non-Student and Student Incomes under Rf 5,000 - Malé 2000**

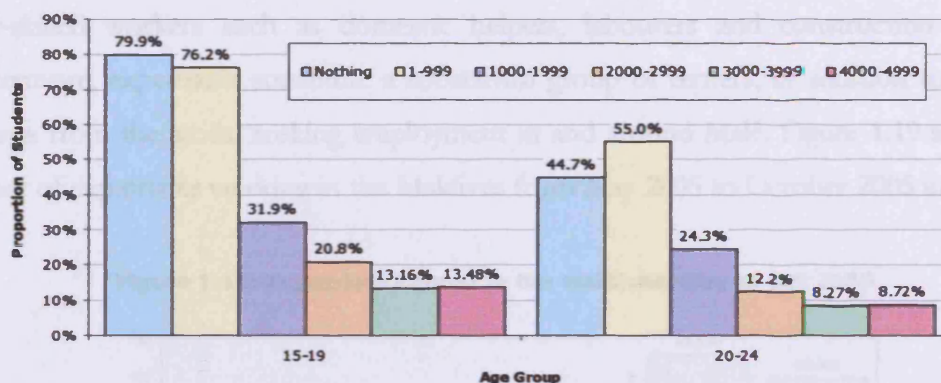


Source: MPND (2001b), Population and Housing Census 2000

The fact that the proportion of males increased with income has been established earlier. Lower incomes can also be attributed to full time student status. Figure 1.18 shows that among those aged 15-19, almost 80% who owned nothing, and more than three-quarters with incomes less than Rf 1,000 (US\$ 78) were full time students. Among those

aged 20-24, students comprised 45% of those who owned nothing and 55% of those with incomes less than Rf 1,000 (US\$ 78). As fewer people were engaged in full time studies at higher age groups, the share of students in all income groups decreased.

**Figure 1.18: Share of Students Among 15-24 with Monthly Income Under Rf 5,000**



Source: MPND (2001b), Population and Housing Census 2000

In the absence of any mandatory requirement to declare accurate incomes, these figures can at best be used as a general indication of personal earnings. Declared household expenditure is generally found to be more than the collective income of all members of the households. In fact, a World Bank assisted survey of 250 households conducted by Maldives Housing and Urban Development Board (MHUDB) in 2002, indicated that household expenditures were on average 18% more than the declared collective income of all members of the household (MHUDB, 2002). This observation will be significant when assessing the affordability of rental housing, later in this thesis.

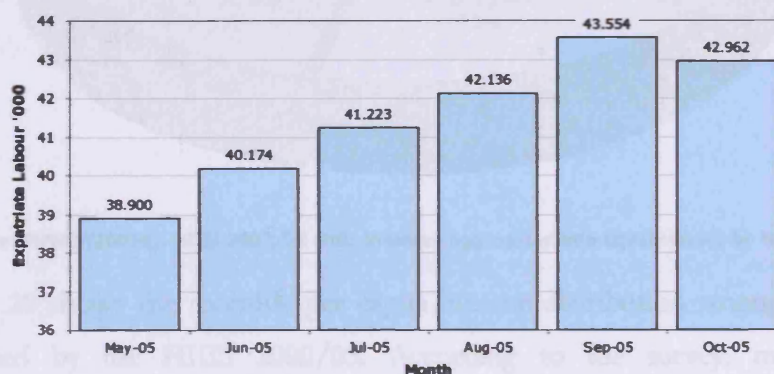
The *de facto* enumeration of people in Census 2000 is likely to have distorted the household income and expenditure figures because several members of the household may have been working away from the island. Family members working in tourists resorts and in international shipping fleets contribute to the total household incomes. In fact, according to the Ministry of Transport and Civil Aviation, remittances from 1,012 seamen, of which 700 were from Malé, totalled US\$12 million in 2003, amounting on average Rf 12,680 (US\$ 990) per seaman per month.

The total productive labour force of the country is estimated at around 50 percent of the working age population, which, coupled with the low level of educated labour, has led to a high proportion of expatriate workforce in the country. Ministry of Employment and Labour, who regulates expatriate labour and issues work permits, recorded 39,002 expatriates working in Maldives in February 2005. This figure reduced consecutively for three months and by the end of May 2005 it stood at 38,900. However, since June, the



number of expatriate workers has generally increased and by the end of October 2005 it was at 43,962 – a slight dip from the previous month. This represents an average monthly exponential increase of 1.67% and 10.44% over the half-year period May to October 2005. Expatriate labour plays a key role in the development of the Maldivian economy. They include teachers, medical personnel and other professionals as well as a large number of lower-skilled workers such as domestic helpers, labourers and construction workers. Furthermore, expatriates constitute a substantial group of renters, in addition to local in-migrants from the atolls, seeking employment in and around Malé. Figure 1.19 shows the number of expatriates working in the Maldives from May 2005 to October 2005 inclusive.

**Figure 1.19: Expatriate Labour in the Maldives, May to Oct 2005**



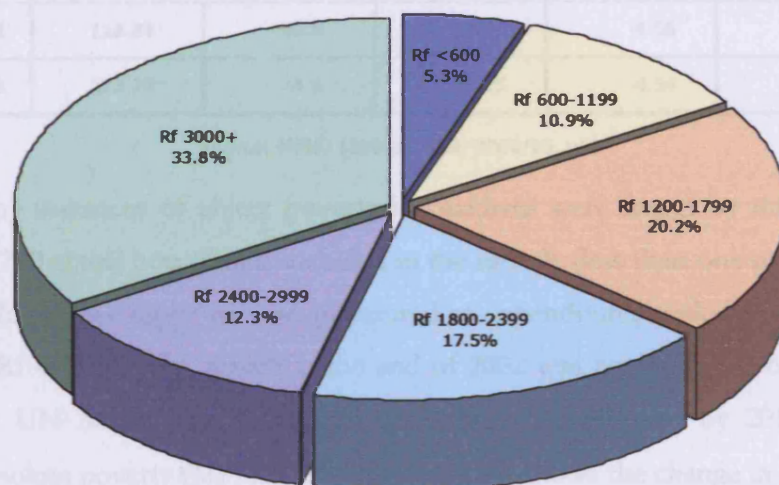
Source: Ministry of Higher Education, Employment and Social Security, 2005

The experience with household surveys in Maldives is rather limited. A household survey was conducted in Malé in 1983 to determine housing conditions for a UNCHS urban planning project for the Malé region. Another household survey conducted in Malé in 1993 was mainly used to derive the weights of the Consumer Price Index (CPI) that is currently published (with pricing base June 1995). In 1997/98, the Vulnerability and Poverty Assessment (VPA98) carried out by MPND in association with UNDP, from a sample of households in all 200 inhabited islands, included the same information on incomes and expenditures, but only a single round of visits was made to the households and all information collected was on recall basis.

A nationwide household income and expenditure survey was conducted between September 2002 and June 2003 (HIES 2002/03). The HIES 2002/03 which employed a scientific sample design to ensure the survey was representative for the Maldivian population at various levels of desegregation, therefore, represents the first comprehensive nationwide household income and expenditure survey conducted and successfully completed in Maldives. The information collected in HIES 2002/03 is also comparable

with the VPA98, the main differences being a sample of forty islands in the HIES rather than all inhabited islands as in the VPA, and the questionnaire being much shorter, leaving out many of the social and demographic characteristics of the households (MPND, 2005b).

**Figure 1.20: Monthly Household Per Capita Income Distribution, Malé 2002/03**



Source: MPND (2005b), HIES 2002/03 (NB: Incomes aggregated into equal classes by the author)

Figure 1.20 shows the monthly per capita income distribution among households in Malé reported by the HIES 2002/03. According to the survey, mean household consumption expenditure in Malé is about Rf 74 (PPP US\$17) per person per day including rent and two-thirds of this, or Rf 50 (PPP US\$12) per person per day excluding rents. Expenditures in the atolls are, on average, roughly half this level. Incomes are highest in the southern region, about twenty percent higher than those in the northern and north central regions where they are lowest. Median income in Malé is nearly twenty percent lower at Rf 61 (PPP US\$14) per person per day including rent and in the atolls, some ten percent lower at Rf 31 (PPP US\$7).

HIES 2002/03 reports that using the UNDP Millennium Development Goals (MDG) dollar-a-day line, poverty in Maldives is negligible. At the lowest VPA line, Rf 7.50 which was half the median income in the atolls in 1998, only about 4% of the atoll population, and none in Malé, are below this line. In 1997/98, four times as many persons in the atolls were living below this poverty line. Only about one in six persons in Malé and nearly half the atoll population are below the highest poverty line of Rf 23 (PPP US\$5) per person per day. The distribution of poverty in the atolls is similar at the different lines, with poverty highest in the north central region, followed by the south central region. In the atolls, headcounts are lowest in the southern region at all poverty lines (MPND, 2005b).



**Table 1.8: Consumer Price Indices and Purchasing Power Parities in Maldives**

Period	Consumer Price Index (1995 = 100)	Percentage change from 1993	Nominal US\$ exchange rate (Rf)	PPP US\$ exchange rate (Rf)	PPP multiplier
1993	91.65	-	11.01	3.52	3.13
1997/98	118.81	29.6	11.72	4.56	2.57
2002/03	113.29	-4.6	12.85	4.34	2.96

Source: MPND (2005b) HIES 2002/03, p13

Barely any instances of abject poverty in Maldives were found by the survey. Only seven of the 740 actual households included in the sample (less than one percent of all the households) had a per capita income (measured as expenditures excluding imputed rents) of less than Rf 4.34 per day, which at the end of 2002 was equivalent to one PPP dollar, which is the UN Millennium Development Goal to be achieved by 2015 in order to overcome absolute poverty (MPND, 2005b). Table 1.8 shows the change in CPI during the period 1993-2003 and the equivalent nominal and PPP US\$ exchange rates in the Maldives. While this result does not imply that extreme poverty is nonexistent in Maldives, it clearly indicates that such poverty is not widespread. What is more, it has reduced further from the already low levels in the 1997/98 VPA. Then, a total of 120 households, or slightly more than 4.5% of the households were below one PPP-dollar per day, which then was equivalent to Rf 4.56.

The HIES 2002/03 results also show a substantial reduction in income inequality within Maldives. The standard measure of this characteristic, the Gini coefficient<sup>7</sup> derived from the VPA stood at 0.42 in 1997/98. The same indicator is 0.38 in the HIES 2002/03. However, over the same period, the between-Gini which is a measure of the difference between Malé and the Atolls, increased from 0.12 to 0.17. As yet, it is unclear what caused this sharp change over such a short period of time (MPND, 2005b).

Over the five year period 1997/98 to 2002/03, incomes of the poorest quintile increased fastest, with the percentage increase in incomes of the richest quintile in the atolls only about two-thirds of that of the poorest. In Malé, the difference is a little less with the

<sup>7</sup> The Gini coefficient is a measure of inequality developed by the Italian statistician Corrado Gini and published in his 1912 paper "*Variabilità e mutabilità*" usually used to measure income inequality, but also can be used to measure any form of uneven distribution. The Gini coefficient is a number between 0 and 1, where 0 corresponds with perfect equality (where everyone has the same income) and 1 corresponds with perfect inequality (where one person has all the income, and everyone else has zero income). Source: [http://en.wikipedia.org/wiki/Gini\\_coefficient](http://en.wikipedia.org/wiki/Gini_coefficient).

richest quintile increasing by about three-quarters of the poorest fifth. In both the atolls and Malé, the lowest income groups grew fastest and the income inequality decreased.

## 1.6 Land for Housing Development

Traditionally households in Malé, and throughout Maldives, receive land free from the government, in perpetuity, with rights of inheritance to heirs. Despite increasing the land area of the island effectively by 80% through land reclamation from the shallow lagoon to the south and west, Malé Island is dangerously overcrowded and congested due to the increase in population largely as a result of rural-urban in-migration. Based on the population statistics of Census 2000 (MPND, 2001a), the population density on Malé Island, which is 1.92 sq. km. in area, is over 354 persons per hectare – one of the highest in the world! Malé municipal area, which also includes the island of Villingili, has an overall density of 338.5 persons per hectare, Villingili being less densely populated in 2000 at only 160 persons per hectare. Much of the reclaimed land on Malé Island has been used for non-residential uses. In fact, if we were to calculate the population density in the residential zone, Malé Island has an alarmingly high density of over 800 persons per hectare.

The Laws relating to land use and ownership remain of particular relevance to promoting housing development. Section 139 of the Constitution states that:

“all land, sea and the fish therein, and the seabed within the territory of Maldives and naturally occurring resources, including metallic ores, oil, gas and other things of value thereof shall vest in the state,” (People’s *Majlis*, 1998, p 41).

Thus, all land effectively remains within the disposition of the government as the vested owner. The government disposal of tenurial rights over this land is, however, not driven by any holistic policy or institutional authority. The government today, vests the management of land with four agencies: The Ministry of Atolls Development (MOAD) is in charge of all land in the inhabited islands other than Malé; the Ministry of Home Affairs, through Malé Municipality, is in charge of the land in Malé, Villingili (an island suburb designated as the fifth ward of Malé) and ultimately in the newly reclaimed island of Hulhumalé (which comprise the Malé Urban Area settlements); the Ministry of Fisheries, Agriculture and Marine Resources is in charge of lands in the uninhabited islands and in those leased out

for agricultural purposes; and, the Ministry of Tourism and Civil Aviation<sup>8</sup> is in charge of islands leased out for tourism. Since 14 June 2005, Hulhumalé is administered by Hulhumalé Development Corporation Limited (former Hulhumalé Development Unit under the Office of the President). A new Ministry of Housing and Urban Development (MHUD) was formed in July 2005, to take on the mandates of MHUDB including policy making related to land allocation, land use planning, urban development and housing.#

**Figure 1.21: The Vicinity of Malé**



Source: Based on Godfrey, T (1999), HDU (2003a) and MHUDB (2000)

Figure 1.21 shows the vicinity of Malé. Villingili is separated by 1.5 km of sea and Malé International Airport is a kilometre from the nearest point on Malé Island. Both these islands are served by regular privately operated ferries to and from Malé Island. A regular

<sup>8</sup> Ministry of Tourism was restructured to include the mandate of civil aviation in July 2005.



ferry service has also come into operation between Malé and Hulhumalé with the settlement of about 2,000 residents in the first stage of the first phase of its development.

The various government institutions in charge of land apply different policies, directives and guidelines, when allocating land for usage in their respective charge. Land is not sold for any usage but is leased for commercial and other purposes. Tenurial rights over land are assigned for residential purposes without realisation of any rents or other user charges such as rates or land tax. This practice derives from customary norms introduced when the land to family ratio in Maldives were much more favourable than it is today. Although all newly inhabited islands and some islands with intense pressure on land, have been provided with land use plans, nationwide land use planning is not practised. Nevertheless, competitive bidding has, in recent times, been used for awarding land and other resources for commercial practises such as tourism and agriculture. Although the practice is aimed towards maximising the public benefit, this practice inevitably excludes the poor increasing inequality. There is no evidence that competitive bidding increases inequality as it does not impinge upon or affect the poor. In any case, it is aimed towards increasing public equity, which would indirectly reduce inequality. As such, there are no unequally distributed or arbitrary barriers to building. In the absence of a Planning Law, the rudiments of mandatory land use planning have been established by a directive from MHUDB in 2004 which stipulates that land can only be allocated according to an approved land use plan.

Residential land in Malé and the atolls is handed over to citizens by Malé Municipality and MOAD, respectively. The basic norm in allocation of land is to maximise land usage. There are no published rules or regulations for the allocation of land so that the respective allocating authorities exercise considerable discretionary power over the disposition of lands under their control. Realising that this situation is inimical to good governance, in more recent times, conditions for allocation of land in Villingili and for the Government constructed housing units, have been publicised in advance. However, the selection process for recipients of housing and land are still shrouded in practices that tend to increase public suspicion and mistrust. Consequently, recent attempts to increase transparency and improve public information have had little impact on increasing public confidence or faith, however noble and just the intentions of the authorities are. By the end of 2004, regulations were implemented to ensure preparation of a land use strategy or plan before new allocations of land can be made on all islands.

Where land is addressed as an issue of heritage, Malé Municipality and MOAD give instructions to the courts as to how to divide the land. This advice is required by law and

the courts do not, as a matter of law, command the latitude to depart from such advice given by Malé Municipality or MOAD. In giving such directions, both the authorities use the policy of maximum usage in terms of allocation. Factors taken into account when deciding on these issues are neither published, nor uniform in application.

Figure 1.22 shows an aerial photograph of Malé Island viewed from the south-west. It shows the built-up extent of the island. The airport island and the southern end of Hulhumalé can be seen in the background. The small island in between is Funadhoo which is used as a fuel depot for State Electric Company (STELCO).

**Figure 1.22: Aerial View of Malé (from SW)**



Source: <http://upload.wikimedia.org/wikipedia/commons/b/b4/Male-total.jpg>. Photo by Shahee Ilyas

The existing form of land tenancy in Maldives can be separated into three categories, viz., land held under *waqf* (trust principles under the *Shariah*); land owned by private individuals; and, land owned by the state allocated to individuals for residential and other purposes. Apart from Section 139 of the Constitution, there was no written law which governed title of land and its tenancy until the enactment of the Land Act in 2002.

The Land Act (Law 1/2002) was considered to be a first step towards the development of a land law that met the standard set by the Sixth National Development Plan (Sixth NDP) of a land law which “sets the legal framework for the emergence of more efficient and effective land and housing markets with clear equitable and predictable rules for both private and public investment in the sector” (MPND, 2001b). However, the Land Act, as enacted was of broad and general principles with scant detail. It set out the basics and specifically provided that regulations will fill in the details.

In Maldives, with the exception of a very small amount of privately owned land on Malé, all land is owned by and vested in the state. This means that one inevitable route which the citizen has to go down to obtain land is to apply to the state or its organs. State officials and agencies managing the land may grant or refuse permission to the citizen to obtain land, to do something with it or enter into a transaction with the interest in land

which they have obtained. Thus, the state reserves the power to bring about fundamental alterations in land relations amongst the citizenry. In cases such as these, land law ceases to be a matter of private law, but becomes part of public law; it is, in fact, administrative law.

Land assigned for residential purposes is given in perpetuity to a person exclusively for residential use by the person and their family, and is passed on to their heirs on the demise of the plot-holder. As mentioned before, there are privately owned plots of housing land in Malé, constituting less than 5% of all allocated land. Since the late 1970s, the Government does not grant this form of land tenancy, and therefore, this practise does not exist anymore. The land assigned in past for private use, is today treated as private property and the legal principles governing transactions in such lands are covered by the principles of Property Law.

Under the prevailing tenurial arrangements, government allocated land does not belong to an individual, and is therefore, not an asset as such. Under such circumstances, transactions in land are very complicated, if not impossible, and certainly very unclear. It is thus not possible to engage in commercial transactions in land since land is owned by the state. However, ownership of the buildings on land assigned for residential use is legally recognised as private property. Nevertheless, such persons are also legally constrained from disposing of such buildings without the permission of the relevant Government authority. The rationale for this rule is that land on which the buildings stand belongs to the State, and therefore permission should be sought for its disposal. Although the nominal costs of obtaining such permissions are minimal, the time required to process transfer of ownership of buildings through the courts could have a monetary value. Once the courts establish the new owner, this is notified to Malé Municipality who would prepare a new title deed.

Since land cannot be used as collateral for financial purposes, investors are left with limited choices for financing investments particularly for housing finance. In State-owned land assigned to individuals for residential purposes, the current practice is to 'mortgage' the buildings on the land since the endorsement or approval of the State is neither required nor sought for such a transaction. But in certain circumstances this leads to compromising creditor's legal remedies against default, since title to such properties remains unclear.

Presently, Government permission for sale is granted in exceptional circumstances where a mortgage is granted on the buildings on the land and where the owner of the buildings is so much in debt that, in the view of the Government, he has no other remedy for financial relief. However, in granting permission, the Government considers housing and related policy issues that arise as a consequence of such a decision. Given the difficulty of the land tenure system no real estate market has taken root in Maldives. Nor has a viable

construction industry developed that can cater effectively for the increasing demands for dwelling space. However, in the absence of a full-fledged capital market, even in the face of such difficulties, user rights over land still remains the only collateral for raising finance for the majority of plot-holders.

## **1.7 Housing Regulations and Standards**

Regulations and standards affect the construction industry, and the ability of the public to access housing, which impinges on inclusivity and affordability. Establishing housing regulations and standards for the whole of Maldives have been the responsibility of the Ministry of Home Affairs through two of its departments, Maldives Housing and Urban Development Board (MHUDB) and Malé Municipality. A regulatory audit carried out as part of the World Bank assisted capacity development project carried out by MHUDB in 2002 concluded that existing planning standards and regulations, together with land use planning and zoning regulations, are generally flexible and appropriate to needs and resources (MHUDB, 2002a). For example, although MHUDB has proposed land use zoning for major land uses, their application has not inhibited the development of small-scale economic activities within residential areas, or housing within institutional zones.

However, there is considerable inconsistency and duplication in the application of the regulatory framework by government departments, most of which lack the capacity to enforce those regulations and standards for which they are responsible. In addition, administrative procedures are complicated and there is a lack of transparency in providing information in a co-ordinated, comprehensive manner. This makes it extremely difficult for private developers or individuals to understand what they need to do in order to conform to those regulations, standards and procedures which do apply.

As stated above, no comprehensive and transparent regulatory framework exists in Maldives for housing and urban management. Planning standards and building regulations have been developed in an ad-hoc manner in response to specific needs and circumstances. For example, neither Malé Municipality nor MHUDB possess a single list of regulations or standards to which individuals or developers must conform in order to obtain planning or building permission.

This lack of a clear framework does not appear to have inhibited a substantial increase in building activity during the last two decades. A large number of multi-storey buildings have been constructed in Malé, even though regulations concerning set-backs from adjacent properties for window openings and ventilation were not formally introduced until

May 2002. Adequate day lighting, natural ventilation and structural safety is maintained in a small city like Malé by the strict control of building regulations and through construction permits approved by MHUDB. Until 2002, plot-holders were required to leave 10% of the plot area undeveloped, irrespective of the location or orientation of the plot, towards natural light and ventilation. During that year, new regulations to determine day lighting and ventilation have relaxed this requirement in favour of plots facing the road where doors and windows will not be obstructed by other buildings. The new regulations also require adequate setback from adjacent buildings to provide for these requirements.

All multi-storey buildings, which are generally constructed with a reinforced concrete structure, are subject to building regulations. In the absence of a national standards institute, the conformity to the relevant British Standard is adhered to in structural design calculations. Although not yet adopted, a national building code for the whole of Maldives has been drafted since 1993 with subsequent revisions, and building regulations since then have incorporated its provisions, where applicable. The final report of the MHUDB capacity building project in 2002 states that, “according to MCPW, it is estimated that the final draft of the Code would be submitted to the Building Code Joint Committee by the end of October, 2002 and upon approval, implementation will begin” (Lee, et al, 2001a). However, by the end of November 2005 the code has not yet been adopted.

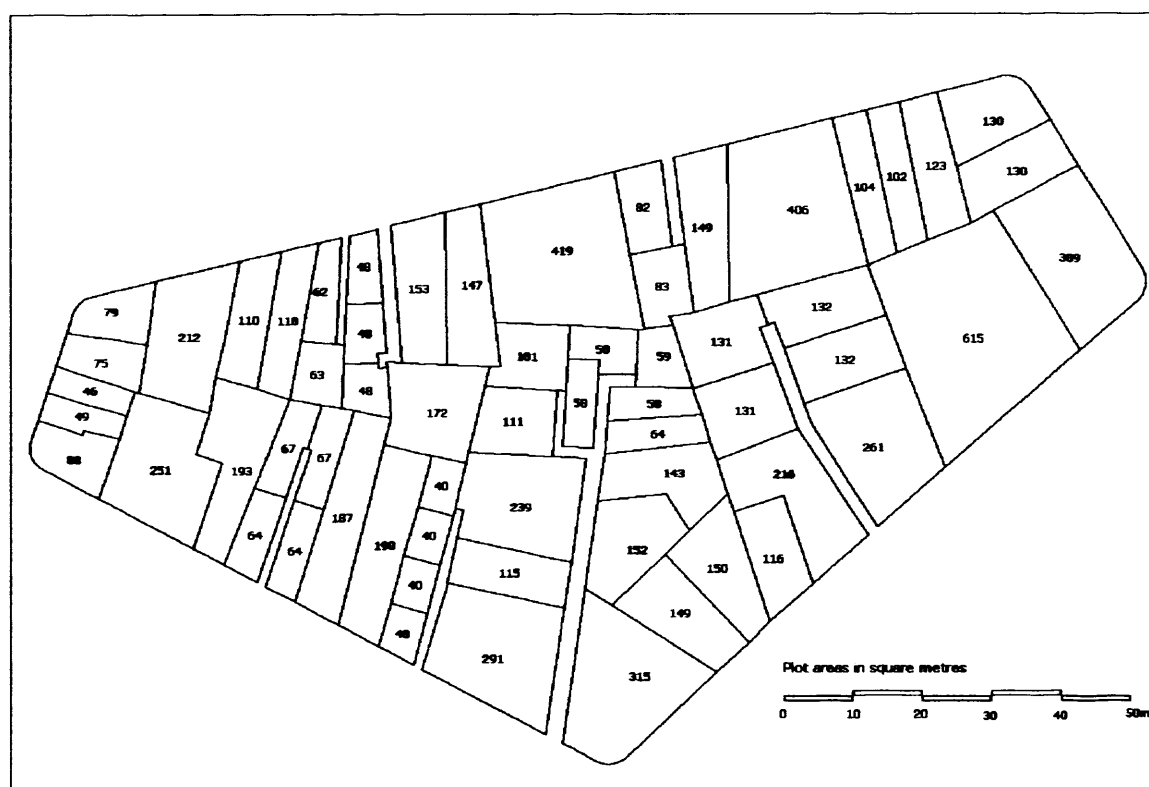
All areas of Malé are served adequately with modern urban services such as piped water supply, a comprehensive sewerage network and a reliable electricity supply, complemented by a regulated, well-functioning land registration system. Although illegal occupation, insecurity of tenure, squatting and homelessness are virtually absent, extents of substandard housing and overcrowding in multiple family low-income households exist to some extent. As such, authorities in Malé neither have to grapple with slum upgrading and removal of squatter settlements, nor to reduce standards to legitimise illegal housing. Market forces in Malé uphold the conformity to standards through reduction in demand and lower returns from substandard housing. Having said that, perhaps one area where standards have indeed been lowered in Malé has been in the size of allocation of housing land, more because of shortages of land than as a direct strategy to reduce poverty.

Land plots allocated for housing in Malé are of varying sizes and proportions. The need for reducing standards to enable more families to own a housing plot has been imperative in the Government housing policies during the past few decades. As a result, the size of housing plots allocated in the reclaimed land during the late 1980s was set at 1,410 sq. ft. (131 sq. m.). Since then, there has not been any mass allocation of housing land on Malé Island. Isolated cases have been limited to compensation for compulsory



relocation, matching the original size of land holdings. The plot sizes in Villingili are set at 130 sq. m. almost similar to those allocated in the reclaimed area of Malé. In order to maintain the island atmosphere and prevent overcrowding, building heights on Villingili are restricted to 4 storeys for residential buildings, and 6 storeys for public buildings. In addition, a mandatory requirement of 15% of open space on plots, with at least 5% in the front of the building has been imposed for Villingili. Subdivision of plots is not allowed.

**Figure 1.23: Subdivision Layout of Block 255 in Malé**



Source: MHUDB (2001), based on pilot GIS project by AAM Surveys

Figure 1.23 shows a typical residential block in the Maafannu ward of old Malé. As can be seen some plots have been subdivided, and paths added to access these subdivisions. Plot sizes on this block varied from 615 sq. m. down to 40 sq. m. The mean area for all the plots in the block is 138.5 sq. m. which is larger than the newly allocated land plots in the reclaimed area of Malé or in Villingili. In contrast, the reclaimed land was subdivided in a uniform grid iron layout comprising 200x200 foot square blocks lacking the social vitality, economic efficiency and visual interest found throughout the older areas of Malé, while at the same time imposing traffic conflicts at the numerous intersections.

MHUDB is responsible for determining plot sizes, except in the atolls, where it shares responsibility with MOAD. A ratio of plot depth to width of 2:1 is generally recommended for efficient and economical use of plots. No specific requirements are stipulated for block

size or public open space. However, Malé Municipality does not currently approve access paths of less than 1.2 metres to buildings on subdivided plots and the minimum right-of-way for public roads in residential areas is 4.5 metres.

There are no planning standards regarding residential densities. Even though Malé Municipality requires a minimum covered area (for sleeping) of 100 sq. ft. for every two persons in every dwelling, it goes on to state that exemptions may be allowed if there are too many people in a household to allow this condition to be met, defeating the purpose for the regulation. Malé Municipality standards also stipulate that every dwelling should have at least one toilet for every ten people living in the house. However if, after utilising available space for essential uses of the household, there is inadequate space for the required number of toilets, this rule does not apply, again rendering the standard unenforceable. In addition to such exceptions, the regulations contain at least one anomaly in that its definition of a dwelling implies a family house on its own individual plot by stating that every dwelling unit should have at least one well and one water tank, conditions which are firstly, not possible to satisfy within a building consisting of several apartments, and secondly, with the complete coverage of desalinated piped water to Malé, not necessary to improve living conditions.

Until the 1980s the Government restricted issuing a separate title deed for subdivisions less than 800 sq. ft. (74.32 sq. m.). However, this was relaxed and subdivisions 600 sq. m. (55.74 sq. m.) or larger are being accorded a separate title since the mid-1980s. Furthermore, where plots subdivided among heirs produced subdivisions smaller than this, Malé Municipality recognises boundaries where 'separate ownership buildings' can be constructed, and a permit may be issued for individuals to carry out construction activity on such land, with separate electricity, water and sewerage connections, but within the title deed of the larger multi-ownership housing plot. However, land less than 100 sq. ft. are not given permits to build separately.

The courts favour subdivision whenever any one of the heirs objects to, or declines from, building collectively. This effectively eliminated the limits to the size of subdivisions legally recognised. This practice has had a huge impact on the urban fabric of Malé with unsightly finger-like multi-storey buildings cropping up where a large proportion of the floor space has to be wasted for stairways, which if not subdivided could have been shared saving precious floor space. In extreme cases, Malé Municipality has sanctioned subdivisions as small as 12 sq. m., perhaps just enough for a bedroom only. (See Appendix 2 for an extreme case of such land subdivision among family members.) As a result, it is not uncommon to find all members of a household sharing a small room attached to a

toilet, for all their daily needs, like cooking, eating, sleeping, studying and leisure activities, with severe impacts on their health and psycho-social development, especially for the young and vulnerable.

As an incentive to build housing on larger plots of land, and to discourage subdivisions, MHUDB is implementing a set of building regulations which came into force in May 2004 which restricted the height of the buildings based on area of the land coverage. These regulations prohibit any buildings smaller than 9.29 square metres or with average width less than 1.83 metres. For larger buildings which have average width (which is defined as the quotient of area divided by longest length) smaller than an eighth of the square root of the area of the building, the maximum allowable height is based on the average width of the building, as follows.

$$\text{Maximum allowable height (metres)} = (\text{Average width}/0.8)^2 \times 0.3875 + 1.2$$

For example, using this formula, a building with average width 5.452 metres can be constructed to a height up to 19.2 metres. For buildings which have an average width larger than an eighth of the square root of the area of the building, the maximum allowable height is determined by another formula.

$$\text{Maximum allowable height (metres)} = \text{Area of building} \times 0.3875 + 1.2$$

Using this formula, a building with area 46.452 square metres can have a height up to 19.2 metres.

The new regulations also restrict building height depending on width of access roads and paths, as a provision based on fire security. For instance a building up to 19.2 metres in height can only be constructed if it has an access way at least 1.524 metres wide.

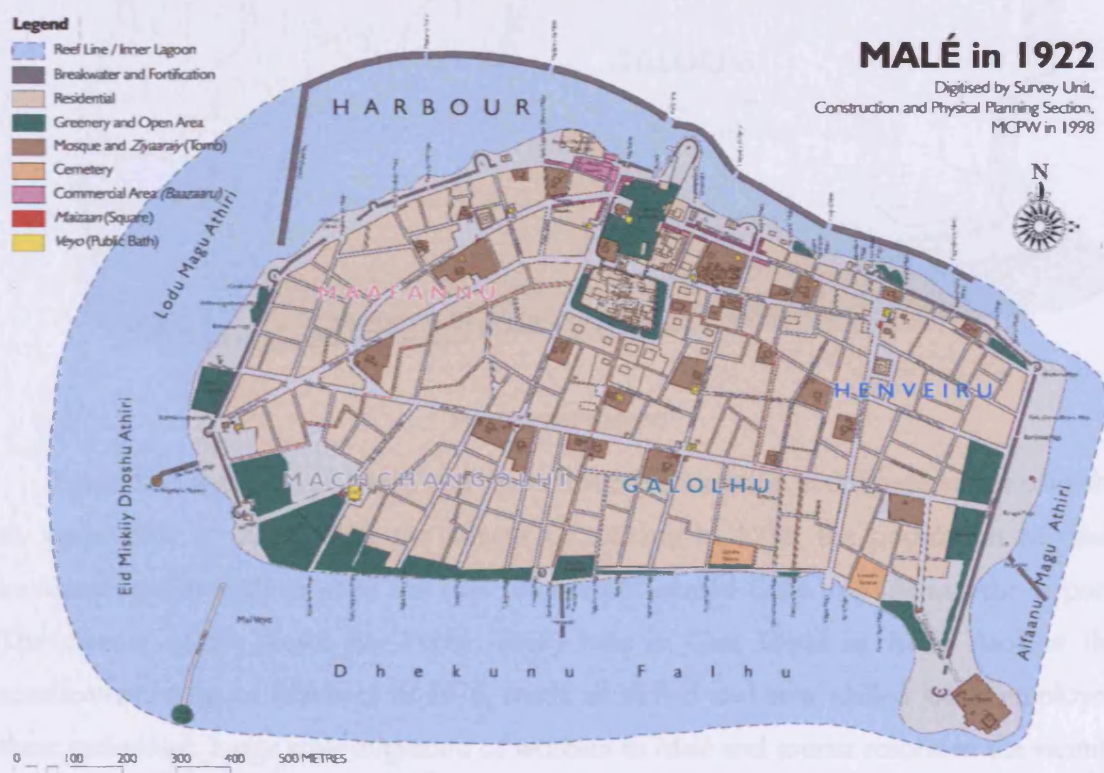
To encourage households to pool land and build together (as opposed to subdivision), the new regulation also extends the maximum height of construction from the existing 100 feet (30.48 metres) to 147 feet (45 metres) which is the height limit determined by aviation regulations imposed by proximity to Malé International Airport. Such construction is, nevertheless, restricted to buildings with footprints no less than 3,000 sq. ft. (278.71 sq. m.), having an average minimum width of 12 metres, and located on roads at least 7.62 metres wide. However, on roads 6 metres or wider such construction is allowed provided the building is set back to make the effective road width 7.62 metres. Existing regulations allow parts of buildings such as balconies, roof overhangs and awnings, above 6 metres from ground level, to extend up to 1.2 metres onto the road, depending on the width of the road. Under the new regulations, no such projections will be allowed above 30.48 metres. What is more, foundations of such buildings are required to be set back at least a

metre from adjacent plot boundaries. Current regulations allow buildings up to 30.48 metres in height, to have foundations and outer walls abutting onto adjacent buildings.

## 1.8 Housing Tenure

Until the 1970s, very few buildings in Malé, let alone residential buildings, were more than one storey. The pressure for land escalated during the 1970s and the Government adopted a two-pronged approach to land provision. One was that Malé residents were allocated plots in the shallow reef flat on the south and west of the island, which they reclaimed with solid waste, construction debris, coral and sand. Half of such land belonged to the individual as private land while the rest was allocated to the owner as Government land. Some owners who had larger plots have sold their private land to finance the construction of housing on their Government-owned land. This practice added 17.6 hectares, an additional 15% to the area of Malé in 1960. Another was to remove burial grounds within mosque compounds for residential allocation. At the same time, plot-holders started building multi-storey housing and subdivision of land.

Figure 1.24: Map of Malé in 1922



Source: HCP Bell (1940) *The Maldiv Islands: Monograph on the History, Archaeology and Epigraphy*



In 1911, Malé Island had a population of 5,236 which represented 7.25% of the 72,237 people in the nation, according to the first recorded census in the country conducted by the British administration based in Sri Lanka (MPND, 2001b). The subsequent decennial census in 1921 registered a reduction in national population to 70,413 probably due to high death rates from the hardships of World War I. Malé then had a land area of 107.8 hectares with a density less than 50 persons per hectare. Figure 1.24 shows a map of Malé in 1922 showing the urban form of the island which is dominated by the Sultan's Palace and the fortifications around the accessible sides of the island, with defensive walls and gun-posts.

**Figure 1.25: Land Reclamation in Malé 1960-2001**



Source: MHUDB (2002)

Figure 1.25 shows Malé Island and the extent of reclamation at different stages over the 41 years 1960 to 2001. With the advent of tourism in 1972, the population of Malé increased rapidly with most of the first few resorts located close to Malé and the airport. The closure of the Royal Air Force (RAF) base in Gan Island in Addu Atoll at the southern-most tip of Maldives in 1976, made all skilled and semi-skilled locals employed there redundant. Large scale migration of workers to Malé and tourist resorts in the vicinity put immense pressure on housing land in Malé. As a result, in 1979, the Government embarked on an ambitious land reclamation project to fill up the shallow reef flat on the south and west of Malé Island. Upon completion of the project in mid-1986, the land area



of Malé had increased almost 40% to 180 hectares. With additional land reclaimed on the eastern end to create an 'artificial beach', and subsequent reclamation at the south-east corner of the island, the land area of Malé Island currently stands at 192.23 hectares, adding almost 80% to the size of Malé prior to 1960.

One of the objectives of the reclamation project was to provide land for housing the increasing number of Malé residents. However, apart from eight blocks allocated for municipal flats (of which one was later assigned for the sixth primary school) and two blocks as housing for the security services, the land has been exclusively used for non-residential purposes, notably warehousing. The few housing plots allocated went to senior government officials and officers of the security services. Only 7% of the total reclaimed land is being developed for residential use. Figure 1.26 shows a recent aerial photo of Malé Island showing the main commercial and administrative centre to the north and the newly reclaimed land to the south and west of the island.

**Figure 1.26: Aerial Photo of Malé**



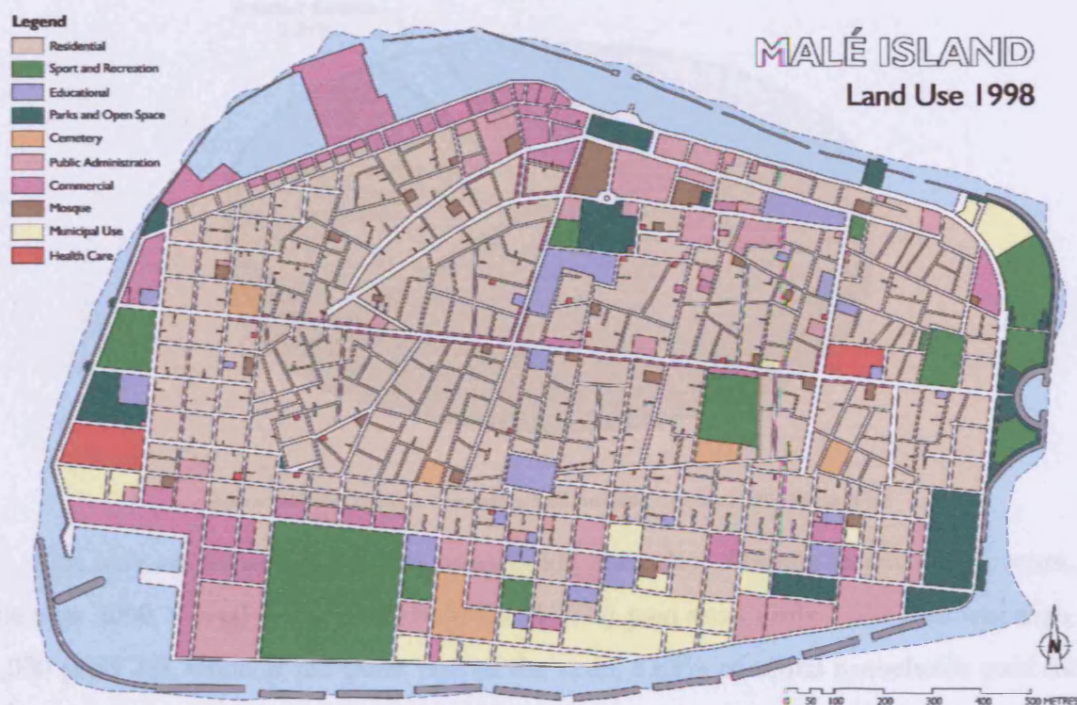
Source: Google Earth (DigitalGlobal Image)

A large proportion of the reclaimed land has been allocated for utilities and urban services (electricity, water and solid waste disposal), social facilities (schools, hospitals and community centres) and for recreational use (playing fields and indoor sports halls).



Among these are the Indira Gandhi Memorial Hospital (IGMH) built with Indian bilateral assistance, the two largest private schools in Malé, three Government primary schools, hostels and several faculties of Maldives College of Higher Education, and several government offices. Figure 1.27 shows the land use distribution in Malé in 1998.

**Figure 1.27: Land Use in Malé, 1998**



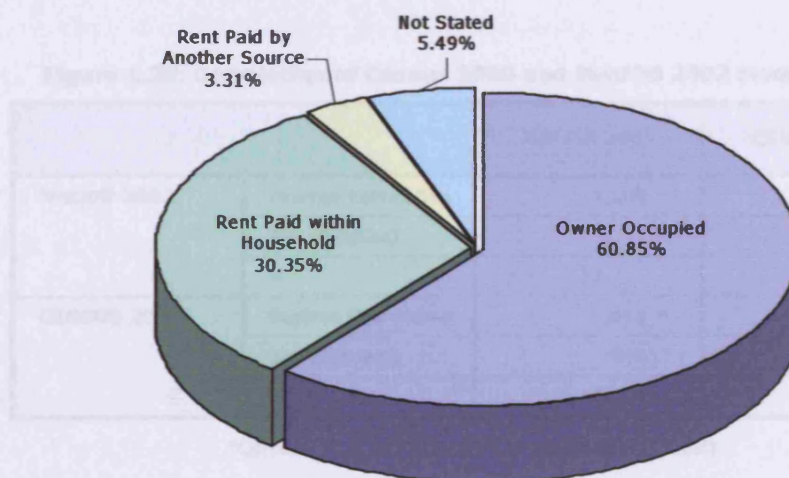
Source: MHUDB (1999) produced with data from MCFW

As mentioned before, the only substantial housing allocation from the reclaimed land was for the development of municipal flats for Malé residents. As a result, many of the immigrants to Malé have been unable to obtain land plots for housing development, resorting instead to private rental accommodation. In fact, the nature of housing in Malé has been changing over the last few decades. Whilst in the early 1980s almost all families lived in owner occupied houses, at the time of Census 2000, out of the 9,700 households in Malé, 8,327 (85.85%) lived in houses while 557 (5.74%) lived in apartments. The remaining 8.41% were in non-residential places (e.g., hospitals and prisons), collective households, and other places that were not specified (MPND, 2001a).

In addition to the type of dwellings, housing tenure has also been changing. The pie chart in Figure 1.28 shows the distribution of housing tenure in Malé in the year 2000. It shows that 60.85% of all households lived in owner occupied accommodation while just over a third of all households (33.65%) were living as tenants in rented accommodation. Of those living in rented accommodation, 90.17% paid rent from within the household while

9.83% had rent paid for by someone outside the household. Household expenses being borne by extraneous sources is not uncommon in Malé where the main earner may be working in a tourist resort or employed as a sailor in an international shipping fleet.

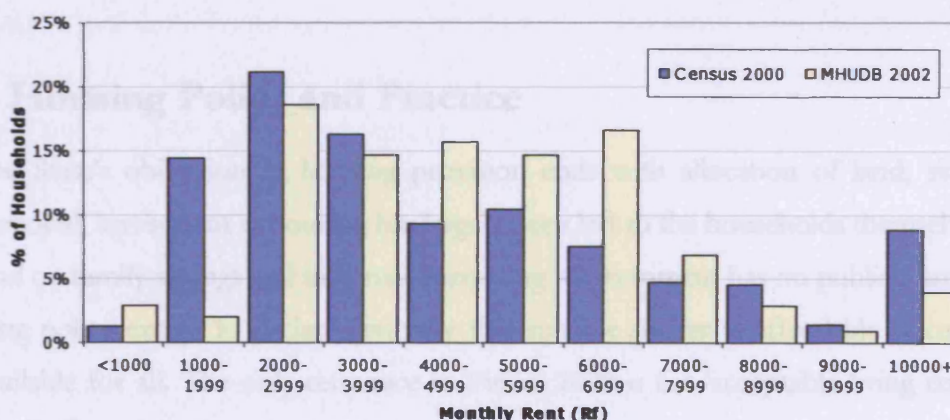
**Figure 1.28: Housing Tenure in Malé, 2000**



Source: MPND (2001a), Population and Housing Census 2000, Table H-14

Not only are there more tenant households, they also continue to pay higher rents. In the year 2000, a total of 3,079 households (31.7%) paid rent. Only 1.3% paid less than Rf 1,000 (US\$ 78), while at the other end of the scale, 8.83% of rental households paid more than Rf 10,000 (US\$ 780) monthly. The median rent class was Rf 3,000-3,999 (US\$ 234-312) with a calculated median rent of Rf 3,246 (US\$ 254) monthly.

**Figure 1.29: Comparison of Monthly Rents in Malé, 2000 & 2002**



Sources: MPND (2001a) Census 2000; MHUDB (2002) Household Survey (NB: Rent categories aggregated to equal classes)

More recently, findings of a random sample of 250 households in Malé, carried out by MHUDB in 2002 for a World Bank assisted capacity building project on housing and



urban development, indicated that 40.8% of the households paid rent. Among these households, the median rent was Rf 4,250 (US\$ 332) while the mean rent was Rf 4,770 (US\$ 372). The distribution of these rents is shown alongside those for Census 2000 in Figure 1.29. As can be seen, over four-fifths of all tenant households paid monthly rents between Rf 2,000 (US\$ 156) and Rf 7,000 (US\$ 546).

**Figure 1.30: Correlation of Census 2000 and MHUDB 2002 Monthly Rents**

		MHUDB 2002	CENSUS 2000
<b>MHUDB 2002</b>	Pearson Correlation	1.000	.612 *
	Sig. (2-tailed)	.	.045
	N	11	11
<b>CENSUS 2000</b>	Pearson Correlation	.612 *	1.000
	Sig. (2-tailed)	.045	.
	N	11	11

\*Correlation is significant at the 0.05 level (2-tailed).

A statistical analysis of both these sets of data indicates a high degree of correlation between the proportions of households among the rental classes. In fact, as shown in Figure 1.30 above, a two-tailed Pearson correlation is significant at 95% confidence levels. This shows that, although the median rent has increased as expected, the distribution of rents among tenant households have not changed much over the two year period 2000 to 2002. This implies that the distribution of households among the rental classes has remained constant despite the increase in rents. It further shows that rental households are able to cope with such a hike in rents, an attribute which lies central to the private housing finance situation in Malé.

## 1.9 Housing Policy and Practice

As the State's obligation to housing provision ends with allocation of land, since time immemorial, investment in housing has largely been left to the households themselves, who depend on family savings and informal borrowing. Government has no publicly announced housing policy except to declare generally that suitable shelter at affordable prices should be available for all. The only reference in Vision 2020 is for 'acceptable living conditions for all' (Office of the President, 2000).

Until the Housing Development Finance Corporation was established in 2004, formal housing finance has been restricted to commercial banks who treat housing loans in the same way as commercial loans, with high interest rates, short repayment periods and

requiring adequate collateral. The neo-liberal *laissez faire* policies of the government on housing have resulted in households with access to land using it increasingly as an income source and exploiting those without access to land, who have to resort to private rental housing, since public housing development has lagged far behind demand.

Some of the policies of the Government on housing can be labelled as misguided. One of these is the Malé Housing Project, which is developed with grant and loan assistance from the Chinese government, provided just 68 housing units from 1988 to 1996, during which time the population of Malé increased by 14,500 (MHUDB, 2000). Even at 9 persons per dwelling, this meant the need for over 1,600 new housing units. In 2002 the Government constructed a further 60 units using budgetary finance. Another 33 were constructed, again with Chinese aid, on the neighbouring island of Villingili.

For the 60 publicly financed apartments that were newly allocated in 2001, over 7,300 applications were lodged at MHUDB of which over 80% fulfilled the stringent criteria for eligibility, which were: being a Malé resident (registered at Malé Municipality); being 21 years of age; having no access to land on Malé, whether through inheritance or marriage; having never sold or given away a land plot on Malé; having never been allocated a Government flat; having at least one dependent living with him/her; having not committed a punishable offence by law (which included theft, dishonesty, sexual assault, sexual abuse of minors, terrorism and drug related offences), within the past 5 years; and, having a good credit rating, i.e., paying whatever declared public debt regularly. In fact, 75% of those ineligible failed because they had no dependants living with them, negating the need for public housing (MHUDB, 2001).

The development of Villingili Island near Malé in early 1990s for housing the growing population has also brought scant relief to the overcrowding on Malé. Because Villingili is only just over 26.5 hectares, with little scope for increasing the land area through reclamation, the potential for alleviating the housing situation for Malé was minimal, even from the outset. Census 2000 figures indicate that the 4,291 people living on Villingili represented less than 6% of the capital's population. Today, even after 12 years of habitation, many of the municipal and social services provided are not comparable to that on Malé. As a result, many dwellers on Villingili commute to Malé for work, schooling and essential social services, rendering the island a dormitory settlement. Given the limited size of the island, and proximity to Malé Island, Villingili residents will continue to commute to Malé for jobs. With strict planning guidelines to restrict multi-storey buildings to 4 floors, it is likely to continue to remain a garden suburb of Malé much like the suburbs of any major city like London, Mumbai or Tokyo.



**Figure 1.31: Built Environment of Malé**



Waterfront near main business and administrative zone



Multi-storey structures in the Henveiru ward of Malé



Multi-storey structures in the Machangolhi ward of Malé



Multi-storey structures in the Maafannu ward of Malé

Sources: MHUDB, 2002 (top); Author, 2005 (bottom)

Figure 1.31 shows photographs of the waterfront and inner harbour of Malé in front of the main business district and government offices, and buildings in three different wards of Malé, showing typical private sector multi-storey housing developments. The congestion and overcrowding of Malé has been identified as a potential problem as early as the 1980s when there were hardly any multi-storey buildings.

Since the beginning of the 1980s, the development of an additional urban area for alleviating the housing conditions in Malé has been discussed at professional and policy making circles. The UNCHS sponsored Urban Planning Project for Malé in 1981-83 identified this need, and suggested exploring nearby reef flats suitable for reclamation. to develop as potential overspill areas for Malé. Having experienced the little impact Villingili had on alleviating the congestion in Malé, in 1995, MHUDB prepared a document identifying the shallow reef flat within the Hulhulé-Farukolhufushi Reef as the most economically viable and technically feasible solution for the expansion of the urban area of Malé. It also recommended studying the financial and environmental impacts of the

proposed development. In October 1997, the Government commenced reclamation of the shallow reef area from fill material obtained by dredging the lagoon. The work was initially undertaken by the Ministry of Construction and Public Works (MCPW) through budgetary funding.

While the reclamation works continued, albeit very slowly, MHUDB with input from MCPW, MPND, Maldives Airports Authority and Civil Aviation Section of the Ministry of Transport and Civil Aviation, prepared a master plan for Hulhumalé in 1999, which became the basis of the land use distribution and phasing components of the current development. It considered population forecasts, and aircraft noise levels from the expansion of Malé International Airport in determining the optimum population and the location of residential zones. It identified three phases of reclamation and urban development. The 195 hectares of land created in the first phase would provide housing and related facilities for about 53,000 residents, with a substantial area closer to the airport devoted to commercial and industrial use. The second phase would add another 240 hectares to house an additional 100,000 residents in a largely residential zone. The third phase of reclamation adding 305 hectares is zoned for further expansion of Malé International Airport and its related activities.

From November 1999 to the end of March 2001, Hulhumalé Project was managed by MHUDB with technical input from MCPW. International tenders were invited for the dredging works of Phase I, in November 1999, and after evaluation of tenders and subsequent negotiations, mainly related to the financing component of the contract, the reclamation contract was awarded to an international dredging company through commercial loan financing, at the end of March 2001. To facilitate implementation and monitoring of the project, Hulhumalé Development Unit (HDU) was formed in April 2001 under the Office of the President. One of the initial tasks of the new unit was the coordination of the reclamation project and the development of an urban development plan for the first phase of Hulhumalé. On 14 June 2005, HDU was abolished and a corporate status given to the organisation by establishing Hulhumalé Development Corporation Limited (HDC) as a limited liability company with 100 percent Government ownership, to function under the Ministry of Finance and Treasury.

The development of Phase I comprise 3 stages related to the medium term population growth. Stage one is further divided into three sub-stages to achieve the short term goals. Stage 1A which was completed in 2004 developed 280 housing units, major roads and social infrastructure including a school, a hospital, an administrative building, 4 commercial buildings and a mosque. All utilities such as electricity, water and sewerage and



telecommunications were provided and the infrastructure developed to cater for 1,000 housing units. Under this stage, part of the industrial area was also developed.

Stage 1B includes the development of 750 mixed development housing units, roads and the related infrastructure. Another part of the industrial area is also to be developed in this stage. The target population at the end of this stage is expected to be 6,000. In Stage 1C, a further 1,900 housing units and the necessary social infrastructure together with further industrial and commercial zones are to be developed. The target population at the end of this stage is expected to be 17,400. Stage 2 envisages a total review of the master plan, and the development of the second neighbourhood. This stage consists of approximately 2,950 housing units and the necessary social infrastructure. Other necessary areas may also be developed. The target date is set at 2016 with an expected population over 35,000.

The final stage of Phase I would also involve a further review of the master plan and the development of the third neighbourhood. This stage consists of approximately 3,075 housing units and the development of further related areas. This is the final stage for the development of Phase I of the Hulhumalé Development Project and the target completion date is set at 2025 with the total population upon completion to be 53,000. The Hulhumalé housing strategy can be summarized as follows: “Create a housing stock in Hulhumalé that would cater for the needs of all sectors of society” (HDU, 2003b). In particular, it is aimed towards providing affordable, appropriate housing for different income groups, ranging from lowest to highest income groups. The primary goal is universal home ownership, either through outright purchase, or through a mortgage institution. Figure 1.32 shows views of some of the residential apartment developments in Hulhumalé.

**Figure 1.32: Views of Hulhumalé**



Source: Haveeru Daily Online

The project conforms to the settlement policy of the Government, aimed at consolidating small socially and economically disadvantaged island communities on larger

islands with quality physical, economic and social infrastructure with adequate coastal protection. However ambitious and resource hungry, the development of Hulhumalé appears to be a pragmatic and comprehensive long term solution for relieving the population congestion and housing crisis facing the residents of Malé. The success of Hulhumalé in fulfilling this objective depends largely on the effectiveness of the regional development projects in providing the physical, social and economic infrastructure to help retain their population instead of migrating to the Malé Urban Area for jobs and social services.

## **1.10 Housing Demand and Supply**

Despite an overall decline in the construction sector in the past few years, some of the individual indicators of the sector showed positive growth. According to Customs statistics, import of construction materials showed a 3.8% percent decline in 2002 following an 8 percent increase in the previous year. However, the slump in construction appears to have recovered in 2003 where the import of seven types of construction materials increased by 11.8% over the 2002 levels, from Rf 265.2 million (US\$ 20.72 million) to Rf 296.2 million (US\$ 23.14 million).

The construction sector contributed around 3.6% to the GDP during 2003, and following a negative growth of about 0.6% in 2002, the sector was estimated to have grown by about 20% in 2003. This high growth was due to the increased construction activities in Hulhumalé and several government infrastructure projects along with private sector housing development and resort renovations. Hence, the import of construction related materials, including cement, various types of steel, wood, and tiles, increased by 20 percent from the 4% recorded in 2002. As for financial flows, the amount of bank credit extended to the sector increased from Rf 136.1 million (US\$ 10.63 million) in 2002 to Rf169.1 million (US\$ 13.21 million) in 2003, reflecting a growth of 24% compared to the one percent growth in the previous year (MMA, 2005).

At the end of 2001 and the beginning of 2002, with the global terrorism scares and the onset of SARS, the construction sector, registered a marginal decline of 0.6 percent in the year after a positive growth of 12% in 2001 (MMA, 2004). The confidence in investment returned in 2003 and continued during 2004. This is reflected in building approvals and completions data over the six year period 1999-2004, issued by MHUDB. Additionally, there is no evidence of rents in Malé collapsing one year from the first group of 1,000 settled in Stage 1A of the first phase of Hulhumalé in May 2004. However, many



developers fear that the volume of construction on Hulhumalé would affect the capacity of the construction sector to keep up with the level of construction activity on Malé.

**Table 1.9: Building Permits, 1999-2004**

	1999	2000	2001	2002	2003	2004
No. of Buildings	540	672	588	452	619	843
Floor Area (sq. m.)	166,738	186,301	245,537	180,738	209,615	304,203
Residential	118,801	144,938	164,404	116,200	131,252	256,687
Non-residential	47,938	41,363	81,133	64,538	78,363	47,516
Average floor area/building (sq. m.)	309	277	418	400	339	361
Residential	220	216	280	257	212	304
Non-residential	89	62	138	143	127	56

Source: MHUDB (2004) & MHUDB (2005), Building Approvals and Completions

During the last 10-15 years, soaring land prices and rents in Malé have provided opportunities for those with access to land, to charge high rents, despite falling construction prices, allowing property developers to attain a high return on their investment. Table 1.9 shows the permits issued for new construction during the six years 1999-2004. After a steady rate of increase of building permits, from 1999 to 2001, there was a sharp decline in the total building permits in 2002. However, by the end of 2003, construction activity had recovered and building permits rose to 2001 levels. In fact, in 2004 the total number of permits issued for new construction, total floor area in these buildings and the proportion of residential floor space, rose to unprecedented levels.

**Table 1.10: Completed Buildings, 1999-2004**

	1999	2000	2001	2002	2003	2004
No. of Buildings	128	235	279	264	175	166
Floor Area (sq. m.)	20,809	36,133	75,257	52,895	56,460	35,293
Residential	12,591	21,223	37,885	33,635	36,662	17,540
Non-residential	8,218	14,910	37,372	19,260	19,799	17,753
Average floor area/building (sq. m.)	163	154	270	200	323	213
Residential	98	90	136	127	209	106
Non-residential	64	63	134	73	113	107

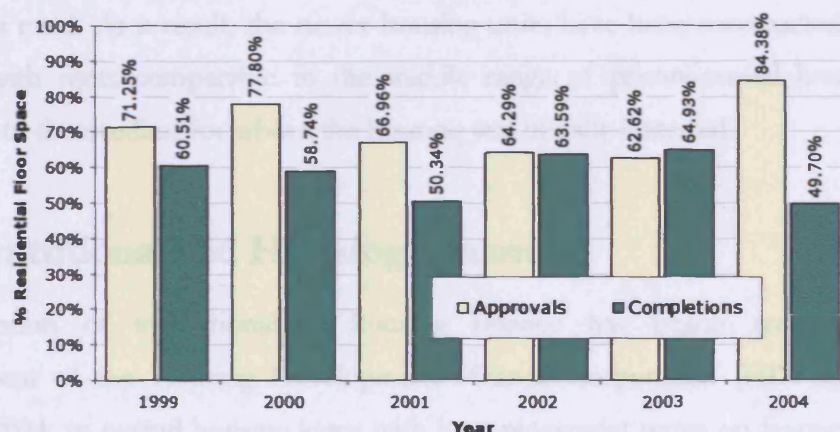
Source: MHUDB (2004) & MHUDB (2005), Building Approvals and Completions

The statistics for completed buildings during the six years 1999-2004 are shown in Table 1.10. There was a sharp decline in the total floor areas of completed buildings in 2002 over that of 2001. However, by the end of 2003, total floor area of completed buildings increased slightly, only to decrease substantially in 2004. In 2003, building approvals recovered from the 2002 slump and by 2004 had caught up the high volumes in 2001. At the same time, after a doubling of total area of completed buildings from 2000 to

2001, a sharp decline of total constructed floor area in 2002 was followed by signs of recovery in 2003 registering an increase in both approvals and completions. However, total floor area of completions in 2004 declined to 2000 levels.

Of the 619 construction permits granted by MHUDB during 2003, 426 (68.82%) were for buildings of 3 storeys or higher. In 2004, 695 out of 842 (82.54%) were for such construction. The floor area of the 175 buildings that were granted occupancy certificates after completion of construction in 2003, totalled 36,662 square metres, of which 33,635 sq. m. (63.59%) were for residential use. In 2004, the total floor area added to Malé declined to 35,292 sq. m. in 164 buildings, of which 17,540 sq. m. (49.70%) were residential.<sup>9</sup> Compared to 2003, 6% fewer buildings were completed in 2004, and there was a decrease of 9% in the total residential floor area. Since the economic indicators remained healthy, this could only be explained by the reluctance of plot-holders/developers to create residential floor space on Malé vis-à-vis the settlement of Hulhumalé and/or the commitment of property developers there. The proportion of total residential floor space decreased significantly from 64.93% to 49.70% from 2003 to 2004 for all building completions. These data indicate a healthy and growing demand for housing in Malé, and evidence of the capacity of the private sector to supply housing to meet the demand for residential floor space.

**Figure 1.33: Change in Proportion of Residential Floor Space, 1999-2004**



Source: MHUDB (2004) & MHUDB (2005): Building Approvals and Completions

Figure 1.33 shows the change in the proportion of residential floor space approved and completed during the 6 year period 1999-2004. As can be seen, the proportion of residential space created declined from around 60% in 1999 to nearly half in 2001 showing

<sup>9</sup> MHUDB (2005): Buildings Approvals and Completions 1999-2004



the vulnerability of the economy to external shocks. By 2002-03 it had recovered to around 65%, reflecting growing confidence among families from economic stability. In 2004, the proportion of completions fell to around 50% because the construction sector was unable to cope with the huge extent of construction associated with the first settlement in Hulhumalé. However, the record proportion of residential floor space that was approved (84.38%) indicates a realisation that the development of Hulhumalé did not necessarily diffuse the demand for residential floor space on Malé. Since there statistics are not available on the number of dwelling units, an indirect estimate of the number of dwelling units created can be made assuming that dwelling sizes remained more or less constant. Such an estimate is attempted in Chapter 4 in sub-section CS\_4.1.

In a Small Island Developing State (SIDS) context it may be argued that affordable and viable housing can only come through the reduction of unit costs, which can happen by enhancing scale economies – which in turn will cut down the overhead costs, enhancing affordability. Thus the solution can be a design solution – both physical units (modular, and lending to variety in output rather than being monotonous) and the process (the way the construction procedure is handled). However, the experience of state sponsored public housing in Malé, has demonstrated the fallacy of this belief. Even with highly favourable financial and technical assistance from overseas, the public housing constructed during the last 15 years is neither affordable nor economic. In fact, the last two phases of public housing construction have been driven by concerns for cost recovery and financial viability rather than need. As a result, the newer housing units have been constructed to a higher standard with rents comparable to the middle range of private-rented housing, hardly affordable to the neediest for whom the housing was initially intended.

## **1.11 Institutionalised Housing Finance**

The inception of institutionalised housing finance has begun recently with the establishment of the Housing Development Finance Corporation (HDFC), formed in February 2004, to extend housing loans with long repayment terms on favourable interest rates to the public, as a 100% Government-Owned Company under the Ministry of Finance and Treasury. The Company is also entrusted with the drawing up of the policy that plans and facilitates the use of land as an asset in Maldives, and to bring the necessary changes and the subsequent development of economic and financial mechanisms in the country, to incorporate this policy. Currently, HDFC has been financed by the sale of

Government Bonds. However, in order to increase revenue, HDFC is proposed to be privatised, through the sale of 60% of the capital as shares to the public.

On its inception, HDFC announced that loans will be available for house purchases, construction of new housing, completion of housing and for the repair or renovation of existing housing. Maximum repayment period was set at 20 years with a grace period of a year for new construction. HDFC indicated that the interest rates will be below existing market rates and that the interest will be fixed for the first 10 years. Loans would cover 80% of project costs, which in effect put a down payment of 20% to the loan. HDFC also indicated that one of the criteria for loan approval will be affordability set at 25% of income. The maximum limit of loan was set at one million rufiyaa (US\$ 78,125), which, if we apply the 80% of project costs rule, would be sufficient for the construction of between 280 and 360 square metres of floor space, at 2004 prices. This is way above the housing requirements of most households.

In late April 2004, HDFC announced that the interest rate, fixed for the first 10 years, would be 9% per annum. Based on these terms and conditions, most households would not be able to afford a maximum loan, as this would require an income of Rf 37,240 (US\$ 2,900) monthly. However, a basic two-storey house, up to 105 square metres in area, costing Rf 375,000 (US\$ 29,300) can be afforded by many households as it requires a monthly income of just below Rf 11,200 (US\$ 875). Because of the strict adherence to affordability imposed by HDFC, loan repayments are reported to be without any arrears by mid-2005<sup>10</sup>.

The potential impacts of the availability of institutional finance for housing development at favourable rates would be substantial, especially for the development of Hulhumalé. However, since the loans from HDFC were not disbursed until mid 2004, it is unrealistic to make any assessment of their success, in terms of effectiveness and suitability, in this research. HDFC loans are currently available for plot-holders only, and not available for developers constructing multi-family apartments on rented land. Until a mechanism is in place to allow developers to utilise HDFC loans, the potential to exploit the land values offered by the scarcity of land on Malé through high density housing, may remain untapped for a long time.

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<sup>10</sup> Informal discussion with Chairman of Board of Directors of HDFC, July 2005.

## 1.12 Focus and Expectations of the Research

Despite a lack of housing finance institutions or formal instruments, households in Malé have continued to finance and construct housing. The majority of such housing has been multi-storey construction involving relatively large sums of money. Considering the relatively low per capita income, and in particular a meagre median household income (MPND, 1998), the strategies through which households mobilize such financing have been intriguing policy makers and professionals, while being poorly understood.

Little, if any, research has been conducted on housing investment and affordability in Malé. The five-yearly censuses collect data on the household size and quality of dwellings, and some indicators of rent. Various project-related studies and reports, sponsored by foreign agencies, have tried to indirectly derive aspects of household income and expenditure on rental housing, with varied levels of success. To date, none of these have adequately addressed the question of housing affordability and explored in detail the ways through which households secure finance for the construction of housing.

One of the ways through which households with access to land have been developing their abode is through developer-financed construction. The plot-holder, in effect, leases the land to the developer for less than 10 years, as regulated by the state. In some cases a concurrent lease may be drawn to effectively extend the lease up to 20 years. However, plot-holders are eager to get the building back and thus not common practice. The developer constructs a building on the land, from which floor space is leased to recover the costs. The plot-holder's household may be either allotted a floor containing an apartment, or provided with an agreed monthly sum to find alternative accommodation. At the end of the lease period, usually end of the tenth year, the building is handed back to the plot-holder. By then, the developer would have recovered the investment and accrued a healthy profit. The plot-holder gets access to floor space that will provide rental income and/or security of shelter for their future needs, at zero capital outlay. This practice of developer-financed housing, as a prime example of affordable and viable housing production despite the economic climate of low earnings and high construction costs, with minimal institutional development, is the focus of this research.

Therefore, this research would contribute to the existing debate by seeking to investigate and identify the strategies that households adopt to finance the construction of housing, and by considering the implications of these in an overall housing policy and theoretical framework. In particular, the extent of developer-financed housing construction will be explored and the motivation and investment decisions of the process investigated,



both from the financial aspects of the developers and from the affordability aspects of the renters. This will be supported by an analytical review of existing literature and a critical observation of recent developments.

## **CHAPTER 2: ANALYSIS OF THEORETICAL CONCEPTS**

### **2.1 Introduction**

Despite a lack of housing finance institutions or formal instruments, households in Malé have continued to finance and construct housing. The previous chapter has stated that the majority of such housing has been multi-storey construction involving relatively large sums of money. Considering the relatively low per capita income, and in particular a relatively low median household income, the ways and means through which households mobilize such financing is the focus of this research.

The discussion of this chapter begins with an analysis of the concepts of housing affordability. It shows how alternative concepts try to resolve the deficiency of traditional concepts of affordability, the relationship between inclusivity and affordability and a critical evaluation of current approaches to addressing affordability. The next part of the chapter evaluates the theoretical explanations for investment decisions. It begins by generally exploring the basis for investment decisions in general, and goes on to identify how housing investment decisions are made, both at household level and at corporate level. This is followed by an analysis of consumption decisions at household level which helps tie in the investment decisions to the concept of affordability. The chapter ends with an analysis of gaps in literature and their implications on the research problem.

### **2.2 Housing Affordability**

#### **2.2.1 Traditional Concepts of Housing Affordability**

Housing is not only a necessity of life; it has a pervasive impact on all aspects of our existence. Housing – if adequate – provides privacy and security against intrusions, both physical and emotional. It is the principal locus of personal and family life. It defines our community and determines our access to jobs, to services, to resources, and to other people in our lives. Both in the developing and developed world, housing embodies not only our material possessions, but also our dreams and our despair.

Yet despite its intimate and profound significance, adequate housing (indeed, any housing) is not assured to all as a matter of right. Rather, as in the Marxist tradition, housing must be purchased as a commodity in the marketplace. “Affordability” is the measure of this quest to secure the housing we need and desire, with the resources we have or can obtain. Affordability expresses the linkage between the well-being of individual families and the mechanisms of housing provision and income determination. Hartman (1988) provides a general definition of housing affordability as the relation of a consumer’s housing costs to their available resources.

What people ought to pay for housing has always been a murky matter. “A household is said to have a housing affordability problem, in most formulations of the term, when it pays more than a certain percentage of its income to obtain adequate and appropriate housing” (Hulchanski, 1995). In his study of the use of housing affordability ‘rules of thumb’, Lane (1997) stated that Ernst Engel “proposed an ‘economic law’ which included the proposition that the percentage of income that households spend for lodging and fuel is invariably the same whatever the income.” In contrast, he also pointed out that “Herman Schwabe suggested that, as total family income rises, the *amount* (author’s italics) allocated to housing increases at a lower rate” (Lane, 1997).

Obviously, there are some variations in how different writers define and formulate the concept of housing affordability. The traditional measure of housing affordability can be surmised to be a certain proportion of income. While poorer households, who can barely pay for their food, do not spend much on housing, more affluent households may be seen to pay in excess of half their income on housing, in a strive to increase wealth through capital accumulation. With the increase in families in rental accommodation in Malé, these concepts are becoming increasingly relevant to understand their affordability of housing. This leads us to look into alternative concepts of housing affordability.

### **2.2.2 Alternative Concepts of Housing Affordability**

The concept of “shelter poverty” espoused by Stone (1993) challenges the conventional standard that says every household can afford up to a certain fixed percentage of income for housing. It offers instead a sliding scale of affordability that takes into account differences in household composition and income. In the aggregate, the shelter-poverty measure does not reveal a more extensive housing affordability problem than the conventional approach. It does, however, suggest a rather different distribution of the problem. Some *low-income* households and *larger* (three persons or more) households pay



less than 25 percent of their incomes but are nonetheless shelter-poor, because they still do not have enough left over after paying for housing to obtain minimum levels of non-shelter necessities.

By the same token, high-income households and many small households of middle income can pay more than 25 or 30 percent of income for housing and still obtain adequate levels of non-shelter necessities, and thus are not shelter-poor. The conventional percentage-of-income measures thus understate the affordability problem of families with children and other larger households in comparison with households of one and two persons, as well as overstating the affordability burdens of higher-income households.

Considering the above arguments, a logical standard of affordability for housing, as espoused by Stone (1993), is a sliding scale that explicitly takes into account the cost of a minimum standard for non-shelter necessities, with income and household size as the principal parameters. Households paying more than they can afford on this standard are *shelter-poor*, the squeeze between their housing costs and incomes leaving them unable to meet their non-shelter needs at a minimum level of adequacy. That is, shelter poverty is a form of poverty that results from the burden of housing costs rather than just limited incomes. On this basis, “only if a household would still be too poor to meet its non-shelter needs if shelter costs were reduced to *zero* should its condition be regarded as *absolute* poverty rather than *shelter* poverty” (Stone, 1993). Whilst we have seen that there is negligible *absolute poverty* among Malé residents, the relatively more affluent in-migrants pay exorbitant rents with insufficient left over for non-shelter needs, rendering them *shelter poor*.

### **2.2.3 Inclusivity and Housing Affordability**

The emphasis upon poverty reduction or elimination has had a number of implications for the development of the housing sector as a whole. While some countries, notably Singapore (Lum, 2002) and Chile (Rojas, 2001 and Gilbert, 2001), have national housing systems that cleverly include low-income groups within the formal policy framework, in most cities in the developing countries, out of necessity, the poor have created their own urban housing systems outside the formal setting. Whilst these systems increased affordability, they have often resulted in an inadequate quality of housing. This has led Mitlin (2001) to suggest that addressing affordability alone is not sufficient, and that development interventions must be associated with improving the quality of housing, whilst maintaining affordability.

Thus the nature and needs of the poor require interventions that are affordable. This almost universally means those that are low cost, but also involve aspects such as subsidies, collective rather than individual development options, and innovation to reduce controls of standards. Approaches need to be inclusive, ensuring that diverse needs do not result in exclusion, and in so doing, enhance the capacity of the poor to work together to achieve multiple needs, thereby securing external resources for development.

Inappropriate standards and building regulations affect housing, especially for the poor. Minimum housing standards are usually determined by local or central governments and are based on public health concerns. Whatever the tenure, minimum standards of hygiene in terms of per capita floor space for living, cooking, personal cleansing and sleeping, water supply and sanitation, lighting and ventilation, and materials and structural safety are determined by authorities all over the world, usually in the form of building codes or building regulations, which are normative prescriptions based on certain ideals. These are usually implemented through international agencies such as the World Bank, as part of a technical assistance project.

This has been recognised by the World Bank to be a major impediment to increasing inclusive housing programmes for the poor. In a major review of urban policy within the World Bank, Cohen (1992) cited regulatory frameworks as a major constraint to improving urban productivity in countries receiving Bank support. He suggested that a key question should be to ask what the costs and benefits of all these regulations were, and proposed that the Bank would introduce regulatory audits, or cost-benefit balance sheets of the regulatory systems operating in specific cities, to clean out elements which constrain economic activity. While accepting that some regulations are undoubtedly necessary, he suggested that others, such as a common requirement that the distance between two buildings should be equal to their height, did have a rational justification. Compliance to such a standard would, in fact, be impossible in urban settlements like Malé where heights of buildings can be as much as five times the width of the adjacent lots on either side.

This concern with regulatory frameworks was reinforced in the Bank's subsequent housing policy paper which stated that 'nothing influences the efficiency and responsiveness of housing supply more than the legal and regulatory framework within which housing suppliers operate' (World Bank, 1993). The paper contrasts the simple and efficient regulations of Thailand with the cumbersome approach adopted in Peru; there it was estimated to take almost seven years from project inception to occupation of units in new developments. Not only do these delays increase costs, but regulations also eliminate

reducing costs of housing and force the poor to spend a larger proportion of their incomes on housing.

Payne (2001) observes that a major proportion of urban housing in developing countries is developed outside officially sanctioned processes. This is less a reflection of a global desire to break the law than of the existence of inappropriate planning regulations, standards, and administrative procedures. Many developing countries have inherited or imported their regulatory frameworks from outside, and these were designed to meet very different economic, social, institutional, and climatic conditions from those currently facing these countries. He cites as examples that building regulations in Lesotho were based on those of Sweden, and those of the highlands of Papua New Guinea on Australian category 'A' regulations derived from coastal conditions.

By attempting to impose such approaches on populations which are invariably too poor to be able to conform to them, the danger is that respect for the law and official institutions in general will be undermined. For urban development to be socially, economically, and institutionally sustainable, he says that it is vital to assess the extent to which changes in the regulatory frameworks are required in order to lower the bottom rung of the legal housing ladder so that the urban poor can start climbing it (Payne, 2001).

The World Bank's approach to regulatory reform has been questioned by Jones and Ward (1994) who suggest that the Bank has restricted its attention to the formal segment of the land market. They express doubts about the application of deregulation to the informal segment of the market, since this is already produced in an unregulated manner. While they acknowledge that removing selected planning and land-use regulations may decriminalise certain activities, hinder corrupt officials, and allow some capital to be invested, they claim that it will do little for the conditions under which the occupants or providers of land or housing compete for resources, and may also expose them to taxes and other costs from which they had previously been exempt. They go on to indicate that the effect of the Bank's policy would be to formalise informal processes rather than deregulate land and housing markets, which they consider 'a curious form of radicalism in societies where 80 per cent of households already fend for themselves in an unregulated manner' (Jones and Ward, 1994). However, this overlooks the fact that existing regulatory frameworks impose costs and conditions which discriminate against the poor and render them vulnerable to exploitation by unscrupulous developers and other providers of commercial shelter in the informal sector. In a situation like Malé, where institutional finance is not forthcoming for the low income households, such developer 'exploitation' might be the preferred option to secure housing. While access to formal shelter undoubtedly involves costs in the form of

taxes, these may also confer benefits if the costs are affordable and residents receive benefits in the form of services and facilities in return.

If cities are to be socially, as well as economically and environmentally sustainable, regulatory frameworks should be inclusive, enabling the urban poor to obtain access to legal shelter and participate actively in the key decisions which affect their lives. Payne (2001) identifies four such approaches. First, decisions should be made at the lowest administrative levels with sufficient competence to formulate and enforce the various regulations, standards, and procedures to ensure that regulatory frameworks are closely related to what can be achieved for all sections of society on a long-term, sustainable, basis. Second, developing and enforcing regulatory frameworks which the poor themselves consider appropriate would reduce the need for unplanned development and the vulnerability of the poor to exploitation. This requires professionals listening to and learning from what the poor want and can afford, rather than making arbitrary decisions on their behalf. Third, regulation should be appropriate to the scale of the activity involved and its social, economic, and environmental impact. In this regard, emphasis should be on creating developments in which: the maximum proportion of available land is allocated to private, revenue-generating uses; standards for the initial provision of public utilities are based on the minimum level essential for permanent occupation of the land or dwelling, with a view to the efficient and economic upgrading of utilities as resources become available; standards and regulations for the development of individual plots are restricted to aspects concerned with structural safety, all others being advisory, rather than mandatory, and presented in a form easily understood by all social groups; and, procedures should be kept to the absolute minimum while focusing on aspects of public concern. Finally, community management is identified to be the most appropriate level to resolve disputes over individual developments, with recourse to outside agencies or authorities regarded as the exception and not the rule.

Many policy makers and commentators (World Bank, 1993; UNCHS, 1996; Tipple, 1994; Okpala, 1992) have identified the need for scaling up housing production in developing countries through all possible means, largely due to the inadequacy of project-based approaches such as sites and services and settlement upgrading programmes for low-income housing provision in these countries. The World Bank and other writers have promoted 'enabling strategies' for the development of the whole housing sector primarily on the basis of expanding the formal private market mechanism (World Bank, 1993, 1988; Malpezzi, 1994; Dowall, 1992; Pugh, 1994, 1995). This is sought through specific policy reforms for adjusting supply and demand conditions and institutional development of the



housing markets, particularly housing finance, to make housing markets more efficient and eradicate government imposed barriers to their expanded activity. Similarly, while UNCHS has moved on to adopt 'adequate shelter for all and sustainable human settlements' in its 1996 Habitat II conference in Istanbul, enabling strategies for private markets, along similar policy reforms as that of the World Bank, still form the gist of its shelter policies and recommendations (UNCHS, 1996).

The 'market enabling strategy' has been criticised by a number of researchers as inappropriate to the context of most developing countries and ignoring the need for expanding the role of informal private land markets and developers, such as can be found in the situation of Malé (Baken & Van der Linden, 1993; Jones, 1996; Jones & Ward, 1994, 1995). The informal land and housing markets are seen by these authors as the most appropriate mode for expanding low income housing supply in developing countries. This is complemented by a diverse body of researchers (Vakil, 1996; Meffert, 1992; Rakodi, 1995; Kumar, 1996) who have concentrated on developing more specific policies for supporting the role of other sections of the informal sector, such as co-operative and community based initiatives and subsistent landlords. These processes have immense potential, being more inclusive and participatory, for application to the situation in Malé.

The relaxation of land use regulations and increased government provision of basic infrastructural services, for example, can be positive actions which increase both formal and informal private sector access to suitable residential land and help in reducing the price of housing units in developing countries. Indeed, some critics of World Bank 'enabling strategy' have themselves called for reducing size and standard regulations as a means of increasing security for informal market activity (Baken & Van der Linden, 1993).

However, due to the existence of landed interest groups and their close interaction with public officials in many developing countries, the effects of withdrawal of state from land ownership and control, and deregulation of the land market in terms of private ownership and exchange, remains unclear. Indeed, the problem of excessive land speculation by landowners, including building firms and developers, in unregulated land markets poses a serious challenge to the efficiency of the private market mechanism. Baken and Van der Linden (1993) have argued that there is a need to distinguish between the demands generated by the use value and investment value of land, since increased deregulation and more freedom for the market cannot prevent excessive land price increases caused by investment demand.

This is particularly the case in developing countries where it is more likely that conditions conducive to increased investment demand in land such as the lack of

alternative investment avenues and high inflation rates exist (Baken & Van der Linden, 1993). The situation in Malé may have a lack of investment opportunities, but inflation has been modestly low, sometimes negative, over the last decade. Moreover, despite protestations by some advocates of the formal private markets (Malpezzi, 1994) that speculation is a rational response to scarcity of serviced land which would be eradicated in its absence, others have noted the tendency of formal private firms to take the easiest route for profit maximisation through land speculation and land development gains even in the UK which has negligible scarcity of serviced land and a much more developed housing and real estate market (Duncan, 1986; Ball, 1983). On the outset, it appears to be such a rational profit maximisation that drives developer investment in rental housing in Malé.

The experience of Bangkok between 1980 and the mid-1990s has been quoted as an example of the success of deregulation and increased capacity of housing markets (Dowall, 1992). As noted by Yap (1996), however, the 'Bangkok phenomenon' occurred during a relatively long period of one and half decades of economic growth and increasing effective demands of the middle and low-income populations, similar to that found in Malé. Therefore, according to Baken and Van der Linden (1993) it is quite likely that in such favourable economic and demand conditions, a similar increase in private market production capacity would have occurred even in a more regulated market.

These arguments support the view that imperfections and inefficiencies are inherent to urban land and housing markets rather than due to government regulations. Such inefficiencies would be particularly damaging for increased low-income housing provision by the formal private sector since it would require lowering the cost of supply. A major factor in this regard would be increased access to cheaper factors of production, such as land and finance, by the formal private firms. Consequently, if deregulation of land and finance leads to increased speculation and monopoly behaviour on land or very high interest rates as in the case of Chile (Duran and Soza, 1987), it cannot be conducive to increased provision of low-income housing by formal private firms. In this regard, Duran and Soza (1987) note that in Chile between 1974 and 1982, the government was emphasising the role of private supply to cover the whole quantitative and qualitative range of demand and left price regulations, credit and interest rate control to the market. Therefore, the private sector was recognised as the only agent for supplying the housing demand of the middle to high income population, while the urban poor were basically excluded, much like in Malé. However, even many of the higher income social groups could not afford the price of houses on offer, which is evident from the fact that many houses remained unsold. At the same time financial deregulation increased the financial

costs of privately constructed houses which in the construction phase alone were 31.4% of the sale price where purchasers pay real interest rates of about 269.68% over twelve years (Duran and Soza, 1987).

Inadequate regulation, as seen in the conduct of developers in Malé, increases uncertainty and breeds contempt of the rights and privileges of others. However, it is imperative that a delicate balance needs to be struck between insufficient and excessive regulations of any nature, especially on land, housing and finance, in order to promote conscientious enterprise. The 1996 UNCHS (Habitat) Global Report on Human Settlements, in citing the example of the Swedish housing market, acknowledged that enabling policies for increased and cheaper housing provision through the formal private market does not necessarily require deregulation (UNCHS, 1996). Rather, it may even mean increased regulation and intervention by the state, even to the extent of laying down what is produced by the private market, if it leads to the provision of cheaper and plentiful factors of production (UNCHS, 1996). This is also exactly the crux of the argument put forward by Jones and Ward (1994, 1995 and 1997) in their critique and replies to World Bank and Pugh.

A similar conclusion on the limits of an under-regulated market is reached by Strassmann (1994) reporting on the situation of the land market in Manila, which is characterised by minimal government regulations on land and housing markets, relaxed standards and regulations for low-cost housing, an efficient building industry in technological and institutional terms, and an active real estate market. Yet, large amounts of residential land are kept empty within the city for speculative purposes by private land owners due to almost negligible taxation on vacant land which accounts for only 0.2% of the reasonable market value of land. Consequently, half of the households could not afford even the cheapest units built by the unsubsidised formal private sector due to high land and housing prices. Therefore, the degree to which land and housing markets are deregulated or supervised is entirely dependent on identifying and examining the structures of provision and relationship of agents in any particular context (Strassmann, 1994).

Moreover, deep rooted involvement of politicians, political parties and local officials in the illegal activities of informal settlements exists in developing countries. These include sanctioning land invasions and protecting informal subdivisions. The author is a victim of such a land grabbing incident in the early 1970s when his mother was required to surrender almost half her privately-owned housing plot, without any compensation, necessitating the removal of some buildings and losing a large part of the garden with mature trees, simply because a close ally of the President was interested in making a quick financial windfall by

selling the appropriated land after just a few months. This was despite the forerunner of Malé Municipality, the Lands Registrations Division of the Ministry of Home Affairs, having records on the legitimacy of the ownership of land by her. Subsequent efforts demanding justice was met with a complete denial by Malé Municipality of the original size of the plot in their records. Although undocumented, there is suspicion that several such irregularities and corrupt activities take place in the lucrative real estate market in Malé.

Such activities indicate that the implementation of policies and application of regulations in the field of land and housing are intrinsically tied to, and a result of, interplay between different political and economic interest groups which is often manifested in the form of clientelism and political mediation (Baken and Van der Linden, 1993; Jones and Ward, 1994, 1995). A similar relationship can also be identified between inefficient and excessive speculative activities of formal private landowners and politicians. This is exemplified by the case of Manila where efforts to raise idle land taxes and related land reforms were thwarted by powerful formal private sector land owners, who were supported by some congressional leaders, who were themselves large property and land owners (Strassmann, 1994). Thus, any proposals for urban redevelopment or readjustments to free up housing land in Malé are likely to face stiff opposition from powerful politicians and businesspersons who hold and benefit from proportionally large chunks of land.

In this regard, Ted Baumann (2001) reports on the frustration of the South African government with a conventional housing subsidy programme delivering capital funds to construction companies to build for the poor. Houses have been badly located with regard to jobs and services, and are too small. Housing construction has had little to do with need and capacity on the ground but is driven by the bureaucratic requirements of large state-owned agencies. In order to secure a more flexible and user responsive system, the government in South Africa is introducing a more demand-oriented approach with a savings requirement for all but the very poor. The lowest income groups will be allowed to contribute their "sweat equity" in self-build initiatives. In such an initiative, in the absence of absolute poverty, a demand oriented approach with a 'savings and loan' type of scheme is likely to benefit the poorest residents of Malé.

Despite their optimism and evident success, limitations of these point to the inherent difficulty of including the poorest families in programmes that require financial payments, however small. How can the poorest families be included in programmes that require financial payments, however small or flexible? As evidence mounts that microfinance programmes continue to exclude the poorest and most vulnerable families (ADB, 2000; Sanderatne, 2001; Robinson, 2001), finding approaches that are inclusive rather than



exclusive is surely the greatest challenge. Robinson (2001) points out that sustainable microfinance can only serve the 'active poor'. The problems of the ultra poor have to be met by the government. Fortunately, as shown by the HIES 2002/03, Malé residents do not fall into the categories of vulnerability and poverty experienced in major cities of several other developing countries. At the same time, the small scale of population and island size renders the management of strategies and targeting beneficiaries relatively easy for public bodies. Nevertheless, there is mounting evidence that without some kind of subsidy, some households in Malé would never be able to own their housing, or afford even the most basic forms of it.

#### **2.2.4 Approaches to Addressing Affordability**

In most developing countries, the formal market mechanism has systematically failed to satisfy the increasing housing needs of the urban population. Following from John Turner (1976) and the first Habitat Conference in 1976, which brought about a paradigm shift towards an 'enabling approach,' during the last two decades, self-help housing has increasingly been recognised by many writers (though few policy makers) as the only means available to fulfil the immense demand for mass housing in cities. However, in cities like Malé where physical space is at a premium, self-help housing – which inherently involves basic building materials, informal labour and incremental construction – cannot fulfil the relatively huge unmet demand and would be unproductive and wasteful of the most limited of resources, land. What follows are some of the salient approaches in understanding and addressing housing affordability.

Although recent evidence indicates that poverty, in particular urban poverty, in Maldives is decreasing (MPND, 2005b), broad worldwide indications suggest that poverty in urban areas is both increasing and changing in nature. Whilst some of the newer groups who join the urban poor do have adequate access to services and infrastructure, for most, housing, infrastructure and services remain inadequate. The need for improvements is immense: in 1992, it was estimated that some 600 million urban dwellers throughout the South (defined here to include Africa, Asia, Central and South America) were living in substandard housing, with inadequate basic services (World Health Organization, 1992).

The broad context within which urban dwellers are seeking to secure their livelihoods and meet their basic needs is, in general, bleak. Structural adjustment programmes have often added cyclical to long-term structural poverty, especially in their first phase when macro-economic austerity combined with curbs on capital expenditure in public sector

budgets. The austerity phases, which have sometimes lasted some four to eight years, had significant impacts in the urban centres of many Latin American and sub-Saharan African countries during the 1980s and 1990s (Bourguignon and Morrisson, 1994).

In some adjusting countries, the long-term changes have led to reduced poverty and increased per capita incomes but with a redistribution of winners and losers. The impacts on some of the urban poor have been acute. For example, Amis (1996) estimates that wage levels in Nairobi fell substantively between 1980 and 1992 with the average wage in 1992 being equal, in real terms, to only 50 per cent of the average wage in 1980.

The picture that emerges globally is one that emphasises the high levels of existing poverty and the growing need among developing countries. There is an increasing recognition of the diverse needs of differentiated groups within the urban poor. However, there are, in general, too few initiatives that effectively reduce poverty. According to Mitlin (2001), if the response is to reach the scale of need, it needs to be cost effective from the perspective of the implementing agency. She recognises that a growing number of development interventions and a number of different approaches to urban poverty reduction focus on housing and neighbourhood development. Some links are being made through housing co-operatives, non-governmental organisations and adaptations to state housing finance systems and land policies. Others are independent from the state. The challenge for policy-makers is how to support housing and neighbourhood development programmes (and thereby reduce urban poverty) with solutions that are effective in both the short and the long term (Mitlin, 2001).

Mitlin (2001) considers inclusivity on two dimensions: first, the approaches seek to include all the residents within a spatial area and second they provide something that is appropriate to every group. The second aspect is closely linked to that of diversity within programmes in order to meet the different needs of particular groups among the urban poor. She places importance on inclusive approaches to support strong communities, as community and collective action are essential resources for households, especially those with the lowest incomes. The impacts of poverty can only be reduced through strong and supportive social networks. There are many other benefits, including employment possibilities that are publicised through the social networks that exist among the poor (Racelis, 1999). Inclusive strategies also offer a potential for strong collective action by the settlement towards securing additional resources.

Affordability of programmes is sometimes achieved by being low-cost, while on other occasions by using existing household funds to better effect through encouraging collective ingenuity and group involvement in the management of funds. There is much emphasis

placed on savings and loan programmes and micro-finance with evident benefits with respect to affordability. With loans, families can afford capital investments that are beyond their reach which would otherwise be unaffordable. A further benefit is that the programme as a whole is more affordable as loan repayments enable programmes to expand further than would be possible if houses and/or improvements were fully subsidised. However, as discussed by Mitlin (1997), for some groups, savings and loans are much more about inclusivity than about affordability in the short term. Bolnick (1996) discusses the way in which savings and loans can be used to consolidate a community movement, helping to ensure stronger collective action to address the needs of the poor.

The characteristics of affordability, diversity and inclusivity are complementary. Inclusivity is important as an end in itself. For development to be equitable, it must be inclusive. At the same time, by strengthening a social movement able to negotiate with development agencies including state departments, inclusivity increases affordability. The need for affordability is related to the need for programmes at scale and to the need for inclusion. Development interventions that are expensive will exclude the poorest, those most in need. The need for diversity is related both to the multiple needs of the urban poor and to the heterogeneity of groups within the urban poor. For development to be inclusive, development options need to be diverse. Diverse approaches are also more likely to be affordable responding to the different capacities and livelihood strategies of the poor. It should also be recognised that an inclusive approach further reduces costs and thereby increases affordability because of the cost advantages of collective approaches and, as noted above, the potential for mass action (Mitlin, 2001).

Successful experiences indicate positive implications both for the recognised need to ensure that government policies are enabling and for the importance of community participation. They suggest that community led development has within it the dynamic to respond to the needs of the poor in appropriate ways. Therefore development agencies, be it local, national or international, wishing to address the needs of the poor should seek to understand their individual and collective livelihood struggles. Such an understanding is likely to provide a key to better supporting their diverse needs in ways that are affordable and inclusive.

These general principles are also necessary in terms of whole housing sector development – indeed, no more can poverty reduction programmes ignore the multiple needs of the poor. In many cases, the housing sector needs to adapt if it is to address the needs of the poor, with some drawing together of bottom-up and top-down elements, sometimes changing policy objectives and work practices in co-production among

participants. In particular, it needs to recognise that housing interventions are only a part of what is necessary. Indeed, housing research agendas can usefully go beyond advocacy for low-income groups to comparative evaluations of how institutional reforms can progressively secure rising performance in health, education, social co-operation and housing standards among the multitudes in urban poverty. Reforms in the whole democratic decision-making processes are in full swing in Maldives; to make them more inclusive, diverse and affordable would aid development in all spheres of life, most notably in income generation and reduction of poverty, and these will impinge heavily on housing options, strategies, and affordability.

Erhard Berner (2001) presents the 'nature of the relationship between housing and poverty' as a multi-dimensional one. He states that substandard informal housing has two major dimensions. One is the lack of quality, infrastructure and space, while the other is insecurity. For him, both are *factors, indicators* and *causes* of housing poverty. To clarify the argument, he states that housing poverty is largely determined by land supply and allocation. The absolute scarcity of land in Malé, because of the island nature, puts a finite limit to the availability and supply of land. In this regard, housing experts and officials generally accept the insight of Hardoy and Satterthwaite (1989) that there is no 'housing gap' but rather a shortage of suitable and affordable land for self-help housing and that urban land is the 'essential ingredient.'

Although Turner's scepticism of governmental activities was well founded, his radical plea for a minimalist state did not stand the test of time (Werlin, 1999). There is overwhelming evidence that active policies are essential to the provision and distribution of affordable housing. However, very few governments have proved that they are up to the challenge. In fact, faced with market and state failures, most urban dwellers in the developing world rely on their own initiative for shelter. Throughout history, residents of Malé have relied on their own initiative for housing provision with minimal intervention from the State, a condition that underpins the focus of this thesis.

Contrary to countries where land is abundant, for the situation on Malé where there are clear limits on the availability of housing land, this argument has little merit. While one may argue that redevelopment and optimum use of land would free up some of it, the absolute size of the island puts severe constraints on it, making such increases insignificant. Instead, the only obvious option of increasing housing is by creating additional floor space through multi-storey construction, since extending the island's land area any further is not a viable, if not impossible, option. At the same time, in a heavily import dependent economy, where all building materials are imported, construction costs are exorbitantly high and impose



severe constraints on affordability and macro-economic policy, through the balance of payments.

## 2.3 Investment Decisions

### 2.3.1 Discounted Cash Flow Analyses

There are three fundamental financial decisions facing individuals. These are: *consumption decisions*, which determine how much of the resources available should be spent on immediate consumption; *investment decisions*, which determine how much of the resources available should be forgone *now* in the expectation of *increased* resources at some time in the future; and, *financing decisions*, which determine how much cash should be borrowed or lent to enable carrying out these investment and consumption decisions (Pike and Neale, 1993). These are interrelated and should, in general, not be viewed in isolation. However for the purposes of analysis, this section will concentrate on investment decisions.

The net-present-value (NPV) rule is a pillar of modern finance theory. Present value analyses have been used widely in analysing costs and benefits of investment, including that in housing, and it can yield insights on the efficiency of investments, as well as some useful information on equity (Malpezzi, 1991). As known, it is a capital budgeting rule. Finance theory prescribes the investor to compare the opportunity in hand with an asset of equivalent risk, i.e., to discount cash flows with a risk-adjusted rate of return. However, according to Magni (2002) inconsistencies and antinomies arise when applying the above-mentioned rule. Further, it turns out that it is actually impossible to compare alternatives equivalent in risk and any decision-maker cannot prevent themselves violating the above tenet.

There is evidence that some discounted cash flow analyses are carried out by the Government in evaluating financial proposals of major projects, such as the financing options for Hulhumalé development. Also, some of these are included in the financial plan of bids for tourist resorts. However, research evidence will later show that none of these discounted cash flow analyses are indeed carried out by housing developers in Malé. Instead, they depend entirely on a simple arithmetic assessment of the returns on the outlay. As a result, it is highly likely that several relatively profitable projects may have been discarded or overlooked as investors don't deploy discounted cash flow analyses. On the other hand, this could also explain the reasons why several developers have faced difficulties in later stages of the project cycle, as their initial expectations of returns were

not discounted using any of the above principles. Notwithstanding the fact that Maldives have had a relatively stable economic regime, the rapid developmental changes would have also made it extremely difficult to make accurate assessments of future returns.

### **2.3.2 Housing Investment's Production Function**

Brito and Pereira (2002) developed an endogenous growth model where housing played a role as a consumption and an investment good for households, as an input to production, and as a production sector. They showed that the long-term endogenous growth rate for the economy, while not affected by housing-related preference parameters, depended critically on housing-related production parameters. Their key modelling assumption was that housing and other assets in the economy were not perfect substitutes. With this they showed that the endogenous long-term growth rate depended on the relative price of housing and other types of capital. Accordingly, the effects of productivity shocks on growth could be understood through their effects on the relative asset price and the corresponding changes in capital intensity. Without any reliable estimates of house prices, it would be difficult to examine the relative price of housing and other types of wealth in Malé. Nevertheless, the trends in rental values in Malé over the last two decades reflect increases in economic growth and confidence.

Shroder (2001) examined the real estate investment decision and the proportion of wealth invested in real estate in the US, where households supply about three-quarters of US rental housing. Hypotheses drawn primarily from the real estate finance literature about the role of wealth, expected inflation, human capital, income tax rates, race, health, risk aversion and inheritance were tested against data from the Health and Retirement Study. Wealth was seen to have a powerful non-linear effect on ownership of real estate, but ownership was negatively associated with human capital. Marginal tax rates, race and property gifts affected real estate investment; poor health, risk aversion and expected inflation did not seem to. Since households supply almost all rental housing in Malé, these concepts would be useful to examine the relationships between educational level and ownership of housing. Human capital is a way of defining and categorizing skills and abilities of people as used in employment, and otherwise contributes to the economy. Many early economic theories refer to it simply as labour, one of three factors of production, and consider it to be a commodity – homogeneous and easily interchangeable.

The first use of the term *human capital* in the modern neoclassical economic literature was in an article entitled “Investment in Human Capital” in The American Economic

Review in 1961 by Nobel laureate Theodore Schultz who expanded it in a book of the same title (Shultz, 1971). The best-known application of the idea of “human capital” in economics is that of Jacob Mincer (1993) and Gary Becker of the Chicago school (Becker, 1993). Becker’s book entitled “Human Capital”, published in 1964 (with subsequent editions in 1980 and 1993), became the “standard” reference for many years. In this view, human capital is similar to other physical means of production like factories and machines. One can invest in human capital (via education, training, medical treatment) and one’s income depends partly on the rate of return on the human capital one owns. Thus, human capital is a stock of assets one owns, which allows one to receive a flow of income, much like interest earned. Human capital is substitutable, in that it will not replace land, labour, or capital totally, but it can be substituted for them to varying degrees and be included as a separate variable in the production function (Becker, 1993).

Becker (1993) explains and justifies human capital by the unique characteristics of knowledge. Unlike physical labour (and the other factors of production), knowledge is expandable and self generating with use. As professionals get more experience, their knowledge base will increase, as will their endowment of human capital. The economics of scarcity is replaced by the economics of self-generation. What is more, human capital is transportable and shareable – knowledge is easily moved and shared. This transfer does not prevent its use by the original holder.

In studying the relation between financial and housing wealth, Hochguertel and van Soest (2001) found that, although tenure choice affected the level of financial wealth, their results do not support the view that people first accumulated financial wealth before acquiring homes. In fact, in Malé, the developer financed housing construction process does not require households to acquire financial wealth before shelter. Instead, the excess residential floor space is used for accumulating wealth over the longer term, by generating rental income.

Arimah (1997) estimated housing tenure choice models for the Ibadan housing market in Nigeria using empirical analysis based on a logit regression model. The study revealed that the key determinants of the probability of home-ownership were: income, the investment motive for home-ownership, number of children in the house, gender of the head of household, stage in family life-cycle, length of stay in the city and access to land on the basis of ethnic qualification. Access to institutional sources of housing finance was selective and, as such, was not effective in enhancing home-ownership across the city. This would be true in the case of Malé as well, where institutional finance is generally

unavailable. However, ethnic homogeneity and lack of available land would make the last determinant irrelevant for the situation in Malé.

Much empirical work has been undertaken on housing production, investment levels and on the changes necessary to increase the supply of housing at a national level globally. The implicit assumption in these perspectives, that owners buy and sell housing as an adjustment process, is not realised in all housing markets around the world. In fact, in a number of developing countries houses are seldom bought or sold: one such country is Ghana. Here traditional economic perspectives on modelling an owner's decision to extend by comparing it with his decision to sell and move were largely irrelevant. Garrod, *et al* (1995) sought to make a contribution to the analysis of housing supply by developing a housing extension model for the *Asante* culture in Ghana. The model was evaluated in a two-step econometric analysis of the decision to extend. In the first stage the probability of extending was modelled as a function of household characteristics, while the second stage predicted the amount spent on the extension. Although housing has not changed hands by being bought or sold, the impact of private housing investment in Malé can be clearly observed by the extent to which private investor-led housing construction has flourished during the past few years.

### **2.3.3 Enabling Housing Investment**

The rationale for interventions lies in correcting externalities in the free market for the good of the public. Although minimising Government interventions enable innovation and efficiency in the private sector, effective regulation can contribute towards correcting inadequacies in the private sector, especially in dynamic economic growth conditions such as in Maldives. By examining the property market and its contextual socio-economic development in 1980s Singapore, Zhu (1997) tackled the issue of effectiveness of government intervention in an inefficient property market within the framework of a free market economy. Induced by seemingly perpetual economic growth and by the drive for structural upgrading of the economy, development of property across all sectors responded by an upsurge in volume at the beginning of the 1980s. However, oversupply of property loomed consequently as supply overtook demand. Vacant floor areas were accumulated until the market hit the sudden unexpected recession of 1986 when property values were dampened down in the doldrums. The government of Singapore intervened with comprehensive measures to prevent the market from further deterioration.



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Zhu (1997) evaluated the effectiveness of this intervention in the property market. It was found that in Singapore, the Central Provident Fund and property tax rebate were helpful to some extent in encouraging demand for investment and occupation. Nevertheless, Zhu cautioned that market fundamentals should be taken into consideration in interpreting why the private housing market is more responsive than non-residential property markets to the interventions. Government interventionist instruments only served as catalysts, which worked together with other right ingredients. On the whole, the total recovery of the property market was due to the revival of the national economy.

The rise and fall of levels of private investor-led housing construction in Malé also reflect the outlook of the national economy, as can be seen by recent decline in rental values due to lessening consumer confidence led by the economic impacts of global terrorism scares. Nevertheless, the potential exists in Maldives for the Government to intervene with decisive and effective instruments to ensure that private investment and public sentiments are safeguarded and protected. Although not mandatory, the public sector in Maldives operates a Central Provident Fund in which employees put in 5% of their salaries matched by an equal contribution from the treasury. Since its inception in the late 1980s, it has accumulated interest in the bank without any productive use of it. By extending this to all employees, in both private and public sectors, and making it mandatory, this has immense potential to be a vital resource for improving the livelihoods of the population.

Using the slum redevelopment programmes in Mumbai as an example, Mukhija (2001) examines the complexities involved in 'enabling' the provision of housing in developing countries. He states that in conventional thinking the enabling strategy focuses on the ability of the private sector, specifically the 'markets', to deliver housing. Enabling has been

promoted as consisting of, primarily, decentralisation, privatisation, deregulation and demand-driven development. The focus of the policy prescriptions is to reduce the 'damaging' involvement of the state. He demonstrates that enabling is likely to be much more complicated.

Paradoxically, enabling housing provision through market mechanisms may require four levels of what appears to be policy contradictions – both decentralisation and centralisation; both privatisation and public investment; both deregulation and new regulations; and, both demand-driven and supply-driven development (Mukhija, 2001). In other words, enabling is likely to require a different type of state involvement, not necessarily less state involvement. A complex and more sophisticated role of the state is necessary to provide the institutional support for well functioning property markets, as well as to capture the opportunities high value property markets provide. This holds true for Maldives, where private investment has taken place in a vacuum with regard to State involvement. In fact, enabling strategies to promote sustainability of private investment would necessarily mean more state involvement by developing appropriate legislation and regulatory instruments.

Housing interventions in Malé have emphasised government provision in the form of Municipal flats, rather than enabling the private sector to function efficiently and effectively. There is scant recognition of the capacity of the private sector to produce housing to meet demand. Rather, the private sector has been left alone to get along, in an environment that does not safeguard or protect any of the rights of the stakeholders in the property market. In a far reaching housing policy paper in 1993, the World Bank proposes a number of important new policy directions for both the Bank and its borrowers. It advocates the reform of government policies, institutions, and regulations to enable housing markets to work more efficiently, and a move away from the limited, project-based support of public agencies engaged in the production and financing of housing. Governments are advised to abandon their earlier role as producers of housing and to adopt an enabling role of managing the housing sector as a whole. This fundamental shift is necessary if housing problems are to be addressed at a scale commensurate with their magnitude – to improve substantially the housing conditions of the poor – and if the housing sector is to be managed as a major economic sector (World Bank, 1993).

The paper suggests that Bank supported policies, especially the necessity of adopting appropriate standards for housing and residential infrastructure and appropriate pricing and cost recovery, are not enough. Although many elements of an enabling strategy have been present in the Bank's approach to housing, it recognises the need for increased emphasis

on treating the housing sector as a whole. In addition, it advocates complementing past policies which have emphasized investments in residential infrastructure and housing finance with policies that emphasize the need to rationalize the broad regulatory framework within which the sector operates. It admits that the scale of the Bank's interventions in the past has been too narrow to have a major effect on the performance of the housing sector in developing countries.

Citing the magnitude of housing investment and expenditure, the paper examines the considerable stakes of adopting appropriate enabling strategies for the housing sector. Whilst such magnitudes fail to convey fully the many ways in which the performance of the housing sector is intertwined with that of the broader economy through real, financial, and fiscal circuits, it emphasises the impact of Government housing policies on the performance of the housing sector, and the economy as a whole. Indeed, government macroeconomic policies often affect the performance of the housing sector in more powerful ways than direct housing actions by government (World Bank, 1993).

Moreover, it identifies strong links between housing policy reform and the Bank's concerns with reducing poverty and with reversing the deterioration of the urban environment. Slums, dilapidated urban neighbourhoods, and squatter settlements which provide housing to the majority of the urban poor are very often the places of lowest environmental quality. Polluted water, inadequate sanitation and garbage disposal, and indoor pollution caused by wood-burning stoves, although not prevalent in the urban environment of Malé, are major causes of disease in several cities of the developing world. The review warns, though, that the poor are the most disadvantaged by poorly functioning housing markets, and who suffer the most when governments fail to address the environmental concerns of urban settlements.

The paper lists seven main lessons that the past two decades of the Bank's experience with lending have taught. First, project success has proven largely dependent on the level of overall distortions in the housing sector and in the economy: unless projects improved the regulatory environment, they have had a negligible impact on housing conditions. Second, the informal housing sector has an important contribution to make in the provision and improvement of housing. Indeed, it is mainly the activities of the informal sector that are most likely to benefit from enabling strategies. Third, typical projects have usually been too small to affect the housing sector as a whole. Fourth, because governments focused on projects, they may have been diverted from regulatory reform and from creating government institutions with enabling, facilitating, and coordinating roles. Fifth, desirable shifts have occurred in the focus of Bank lending, from housing projects

with largely physical objectives to those that focus on broad institutional reform at the national as well as the municipal level, and which deal increasingly with those institutions best suited to make institutional and regulatory changes. Sixth, a rich variety of approaches to lending for housing, by the Bank as well as by other donors, has begun to emerge; these approaches need to be further developed and refined in coordination with other donors. Seventh, the past focus of Bank lending on the poor in the housing sector has been important and should continue (World Bank, 1993).

It then goes on to list the five principles which will guide the Bank's future assistance in the housing sector. First, the Bank will encourage governments to play an enabling role: to move away from producing, financing, and maintaining housing, and toward improving housing market efficiency and the housing conditions of the poor. Second, Bank housing assistance will have a sectoral rather than a single project focus: projects, especially investment projects aimed at improving the housing conditions of a limited number of beneficiaries, will be designed and evaluated in terms of their impact on the sector as a whole. Third, the Bank will seek to assist counterpart institutions that have regulatory roles and to focus its lending for housing on borrowers willing and able to remove market distortions. Fourth, the Bank will support innovative models of lending for housing; many aspects of housing project design necessary to undertake an effective enabling strategy in the housing sector require further refinement. Fifth, the Bank will seek greater government commitment to improved collection and analysis of housing data to assess housing sector performance and improve the process of policy formulation and implementation (World Bank, 1993).

Hutchison (1994) considered whether housing had been a successful investment for the homeowner during the period 1984-1992 in the UK, in absolute terms and in comparison with other investment media, such as equities and gilts. He discussed the social and political influences, which had encouraged a rise in home ownership and evaluated the trends in share ownership. Using details of the methodologies used in calculating the total returns from housing and the impact of taxation, he showed that, on an aggregated UK basis, housing saw positive overall returns over this holding period and proved to be a good hedge against inflation, although under-performing the returns from UK equities. On a regional basis, the housing returns from the northern regions were higher than those from the south of the country, with the latter also showing a higher volatility of return. This raised the question of whether housing could be a worthwhile addition to an institutional property investment portfolio.



Several implications for provision of affordable housing in Malé can be drawn from the above discussions. Since the private sector has been very successful in providing affordable housing for residents in Malé, Government should encourage and assist the process through legal and administrative instruments that would protect the rights of all parties involved. Recent attempts at providing legislation to allow strata-titling and registration of multi-ownership condominium buildings would allow developers to recover capital faster through sales and mortgages, speeding up the construction process. Previous research has identified that Government provision should be limited to providing a safety-net for the poorest who are marginalised from getting into first rung of the housing ladder. However, literature from international development institutes such as the World Bank have stressed that attempts should be made to ensure that whatever subsidies are realistic and affordable to the Government through cross-subsidisation or the public taxation system.

## **2.4 Economic Theories of Consumption**

To develop the theoretical basis of consumer behaviour within households, in this section, economic theories of consumption will be discussed, dealing first with the significance of consumption in modern society followed by traditional theoretical approaches and their shortcomings, and then showing how some alternative theories that have been proposed also suffer from similar difficulties, on closer examination.

### **2.4.1 Consumption in Modern Society**

The importance and complexity of consumption in modern societies is constantly growing. To guide consumer oriented policy, a model of consumption is needed which reflects consumers' increased significance. The model of consumption prevailing in the theory of market economies as well as in consumer policy was traditionally based upon the notion of consumers' sovereignty. This model served both as a description and as the ethical foundation of the market economy. Hansen and Schrader (1997) in a two-part study show, firstly, the need for a new model of consumption by making clear the descriptive and normative shortcomings of consumer sovereignty. In view of the reality of modern societies, they found it was neither possible nor ethically justifiable to make purchase decisions according to the individual maximization of utility only. In the second part they presented the idea, the ethical foundation, and the contents of the new model of "sustainable consumption." This model was proposed to serve as a guideline for both

responsible consumers and consumer policymakers and for all institutions concerned with the creation of sustainable development.

Using economic principles to explain the nuances of consumer decisions with global implications, does not adequately capture the reality of modern consumption. Embracing a global perspective would enable consumer studies professionals to compensate for this shortcoming as it consisted of “the information, attitudes, awareness, and skills which taken together, can help individuals understand the world, how they affect others, and how others affect them.” McGregor (1998) explained the essence of such a global perspective reinterpreting a collection of economic principles towards global sensitivity.

## **2.4.2 Traditional Theories of Consumption**

Standard economic theory provides two classes of models for understanding consumer behaviour. The first consists of models of intra-temporal choice described in detail by Deaton and Muellbauer (1980) and Blundell (1988). These consider the allocation of a consumer's fixed budget to goods within a single period, according to preference. In addition, it is usually assumed that preferences do not change systematically and that they satisfy axioms of rationality. Such models would describe a household with a regular income and a predictable lifestyle, such that it was possible to allocate money on one payday to all the goods that the household was going to desire before the next. These relate the quantity of each good or group of goods purchased to the income of the decision-maker and the prices of goods. This type of model has proved problematic, and there is some evidence that both its assumptions and the axioms of rational choice on which it is based may be inadequate, as expenditure patterns in developing country cities such as Malé may not be regular or predictable.

Models of inter-temporal choice, forming the second class, currently dominate consumer theory (Blundell, 1988 and Deaton, 1992). These consider a different question – how decision-makers allocate money to different periods over their lifetimes. If the inter-temporal and intra-temporal decisions can be separated effectively, these models are complementary. The decision-maker initially decides how much to spend in every time period and then what to spend it on in each particular period. In practice, modelling the aggregate allocation of consumption over time has proved more theoretically satisfying and, at least predictively, more successful. For this reason, following current economic practice, most of this discussion will be devoted to models of inter-temporal choice. Inter-temporal choice models are invariably operationalised using the Life Cycle and Permanent

Income Hypotheses (LCH and PIH). Both sharpen the intuition that people may attempt to trade off the relative benefits of present and future consumption (by borrowing and saving), rather than spending all their money at each instant (Deaton 1992).

On the one hand, the Life Cycle Hypothesis (Modigliani and Brumberg, 1980) asserts that decision-makers not only take account of current income in determining consumption but income over the whole lifetime. This results in saving when income is greater than that required for the currently preferred level of consumption, and borrowing when it is less. This model explains certain broad patterns of consumer behaviour. On the other hand, the Permanent Income Hypothesis approaches the same question in a slightly different way. As Deaton (1992) points out, under certain subsidiary assumptions the LCH and PIH are very similar. Friedman (1957) argues that decision-makers relate consumption in a particular period not to disposable income in that period, but rather to some estimate of long run or permanent income. Also, he asserts that the PIH can be modelled in terms of learning, and that the present value of permanent income depends on previous values of actual income. These inter-temporal consumption choices will be useful to explain the behaviour of households in Malé, who 'sacrifice' their quality of life by living in crowded conditions in the expectation of quality housing in the future. By the same token, we may also attribute this to future increases in income from surplus dwelling space, which can be rented out.

Devarajan and Go (1998) presented the simplest possible general-equilibrium model of an open economy in which producer and consumer decisions are both intra- and inter-temporally consistent. They showed that, in general, consumers maximized the present value of the utility of consumption, while producers maximized the present value of profits. The problem with relating this simplistic and perfectly logical model to the situation in Malé is that, while housing investment would seem to be maximising profits, the extent to which consumers maximise their utility cannot be determined to any reasonable accuracy given the nature of rental housing that exists.

### **2.4.3 Alternative Theories of Consumption**

The first of these is the "household production function" approach, described by Becker (1981). Models of this kind explore such issues as the household division of labour and marriage contracts. They do this by proposing a household production function, in which family members work together to maximise production of both normal market goods and non-market commodities like children and health. This approach can be seen as suffering from three problems, clearly related to the discussion above. Firstly, presenting social

institutions in these terms is fundamentally dubious. It is certainly true that men and women engage in different household activities, but why they do so is far from clear. The second problem is that the assumptions made in such models ought to require more justification than they do in the strictly economic sphere, but actually receive less. The third problem is that while particular models in this class can be falsified, the class of models as a whole cannot. There are always enough “preference parameters” and ill-defined forms of “family capital” to rescue things.

It is also widely believed that the “behavioural” LCH (Shefrin and Thaler, 1988) serves as a corrective to the problems of the more traditional models. Despite providing an effective critique of existing approaches, what Shefrin and Thaler actually do is replace one mysterious preference function with another. Specifically, they observe that people are less likely to spend out of money what they have labelled as “savings” rather than “income” or “windfall”. What is important is the mechanism by which these labels are created and maintained. Plainly, saved money is spent without guilt on “appropriate” occasions. Similarly, a windfall may be saved in its entirety under a certain circumstance. What determines such actions is the households’ budgetary “practices” or “mechanisms” which cause money to be placed in (or taken out of) certain categories. Without a theory of these practices, saying there are three “kinds” of money rather than one, just introduces more free parameters into the model and worsens the identification problem.

The two-dimensional aspects of dwellings occupied by their owner, consumption and investment, make the analysis of households’ portfolio choice and the analysis of housing acquisition more difficult. But it is difficult to analyse portfolio decisions without taking account of owner-occupied housing that has an important effect on wealth composition over the life cycle. Arrondel and Lefebvre (2001) estimated a portfolio choice model where the different dwellings were defined as assets and showed that they cannot separate investment decisions from housing consumption decisions by the owner-occupiers. Where plot-holders and developer-investors are two different groups of people, as in Malé, we would find that their roles and rationalisations for their decisions will be different.

This section has offered some contributions to the difficult task of refining economic models of consumption. Firstly, it considered some limitations of the traditional approach. Secondly, it described the important parts forming the basis for alternative models, either traditional or otherwise. Finally, it illustrated two ways in which economics makes the task of understanding consumption harder than it needs to be. The first was to exclude certain aspects of consumption (which are empirically important but theoretically problematic). The second was to limit the collection and use of data to that which may be treated



econometrically. This reinforces the exclusion of certain important phenomena like rules of thumb and institutional constraints that cannot be deduced from behavioural data alone. This also puts a significant limit to the extent to which these models could be useful in explaining consumer choice in the context of housing affordability in Malé.

## **2.5 Theoretical Constructs on Investment and Consumption Decisions**

Human decision-making is extremely complex, and sometimes irrational. Neo-classical theorists tend to claim that all actions are dictated by the desire to gain the greatest possible personal benefit, and that there is little or no place for thought for the welfare of one's fellow human beings. For others, fellow feeling may be important but the role of the state in its political expression should be minimal. Green (1993) for example, while agreeing with redistributive policies, criticises the adoption of utility maximising materialism. The inherent assumptions behind neo-classical theories weaken their assertions, because in reality, individuals exercise choice and judgement based on idiosyncratic subjective reasoning. In fact, economists such as Etzioni (1988) and Rivoli (1995) have pointed out that the orthodox assumption of a rational economic individual does not fully reflect the complexity of human decision-making.

Furthermore, Etzioni (1988) argued that, for three reasons, the neoclassical model of household decision-making was inappropriate. Firstly, real people are not only concerned with ends, but also with means and they have goals related both to moral and economic welfare. In other words, economic decision-making among households aims not simply on utility maximisation but is also influenced by the moral and ethical milieu in which decisions are taken. Secondly, individual decisions are reached non-rationally, largely on the basis of emotions and value judgements, and are only secondarily based on logical-empirical considerations. Thirdly, decisions are not taken in isolation from social influences, but are shaped by the norms of wider collectivities such as class, race, nationality and religion, to which the person belongs and identifies with (Etzioni, 1988). Welfare concerns, especially charity and benevolence together with non-rational value laden decision making, have some relevance in housing investment in Malé considering the small nature of the island and the constant nature of the wider attributes people identify with.

Formal housing finance in its various manifestations, including mortgage finance, is highly limited in most developing countries and do not constitute a viable option for financing shelter in most cities including Malé. The formal sector, where it exists, finances

only a small proportion of housing acquisition in cities of the developing world so that loans from relatives, employers and money-lenders supplement savings and current income to finance housing (Renaud, 1985). This is mainly because of the lack of stable long-term funds and the narrow resource base of the financial institutions to provide adequate housing finance. Further, attempts to use housing finance to promote social objectives discourage potential private-sector involvement in the home financing business. Although housing can be a relatively strong form of collateral because of its asset qualities, particularly its redeployability (Buckley, 1996), in practice land, being State-owned in Maldives, cannot be appropriated in cases of default.

## **2.6 Theoretical Implications and Application to the Research Problem**

Previous discussions have shown that housing affordability, in its conventional sense as a proportion of income, cannot be universally applied. The concept of 'shelter poverty' espoused by Stone (1993) reflects a more realistic expression of affordability. The extent to which social attributes impact affordability and household decision-making has not been fully understood. The conclusions from existing literature are that affordability standards can neither be universally accepted among all societies nor be applicable over a wide range of income groups, or tenure types within the same society. In fact, attempting to derive a single suitable model that has global applicability will be futile. Therefore, this research will not be seeking to develop affordability standards; rather it will determine the strategies that families in Malé adopt, to make their housing affordable, especially in the rental sector. It can be argued that, in the Malé situation, affordability is not an issue; rather it becomes an element of sustainability. As a matter of fact, in many cities across the world, including Tokyo, Mumbai and London, many households spend 60% or more of their income on housing, a level that would be untenable in other economies and societies.

Most housing finance studies and research in developing countries have been limited to formal institutions and instruments. There is a lack of literature on the affordability of housing among low-income households. Most studies on affordability have been restricted to developed countries, and for that matter looked into measures of affordability. See Hartman (1988), Hulchanski (1995), and Lane (1997) for typical debates on such measurements of housing affordability. Stone (1993) with his concept of "shelter poverty" while challenging the conventional conception of affordability, has restricted his debate to improving the measurement of affordability. Others, such as Mitlin (2001) and Baumann

(2001) in their suggestion that development interventions must be associated with improving the quality of housing, whilst maintaining affordability, have targeted largely on instruments for intervention.

Most discussion of household wealth, whether popular or scholarly, has been limited to securities, owner occupied homes, closely held firms and bank accounts, among others. The importance of income-producing real estate, and specifically rental housing, as a component of wealth have generally been overlooked. The situation on Malé presents investment in housing that produces wealth by creating affordable rental accommodation (and other floor space), while at the same time fulfilling the additional function of providing them with security of shelter and income for the future, all with minimal intervention from the Government.

Erhard Berner (2001) presented the 'nature of the relationship between housing and poverty' as a multi-dimensional one. He stated that substandard informal housing had two major dimensions. One was the lack of quality, infrastructure and space, while the other was insecurity. For him, both were factors, indicators, and causes of housing poverty. He clarified the argument by stating that housing poverty was largely determined by land supply and allocation. This prerequisite of access to land has been central to the insight of Hardoy and Satterthwaite (1989) that there was no 'housing gap' but rather a dearth of suitable affordable land for self-help housing, and that urban land was the 'essential ingredient.' Land remains a central issue for developing affordable housing in Malé; not in terms of quality and infrastructure, but that the physical nature of an island renders making additional land available impossible.

Among the urban poor, income cannot be a meaningful determinant of housing affordability, since incomes are irregular and sometimes obscure. As such, expenditure decisions within the household determine housing affordability to a larger extent. Chattoe and Gilbert (2001) have presented some economic theories of consumption, consisting of models of intra-temporal choice described in detail by Deaton and Muellbauer (1980) and Blundell (1988), dealing with traditional approaches. However, whatever new theories that have been proposed also suffer from the same difficulties on closer examination. The two apparently "new" approaches to consumption do not, in fact, take us any further forward with explaining behaviour. The first of these was the "household production function" approach, described by Becker (1981). The second approach widely believed that the "behavioural" Life Cycle Hypothesis (Shefrin and Thaler, 1988) served as a corrective to the problems of the more traditional models. Despite providing an effective critique of

existing approaches, what Shefrin and Thaler actually did was replace one mysterious preference function with another.

Much of the scholarly literature on housing tenure in cities in developing countries have tended to focus on tenants and their housing mobility to the relative exclusion of the reasons why individuals become landlords (Kumar, 1996a). Rental housing can benefit both tenants and landlords. For tenants, access to adequate and affordable rental accommodation is critical in their pursuit of an urban livelihood. On the other hand, landlords, many of whom have little or no savings, make use of rent receipts to supplement everyday consumption expenditure ((Kumar, 1996b; Grant, 1996) and to make housing improvements (Gilbert, 1983).

This action of landlords in the private rented sector has not been positively addressed by national governments and international aid organisations, for two reasons. First, based on normative judgements of quality, extending support to the rental housing sector is seen as politically contentious because rental housing is viewed synonymously as poor quality housing provided by exploitative landlords (Watson & McCarthy, 1998). A more realistic approach would be to assess the contribution made by private landlords in terms of the range of rental options and the extent to which this responds to the equally varying affordability of individuals or households (Amis, 1996). Similarly erroneous is the view that all landlords are exploitative in cities where monopolies do not exist (Kumar, 2001).

Second, despite attempts to foster home ownership as government urban housing policy, many tenants, are simply unable to afford ownership due to one reason or another. Governments in developing countries, including Maldives, have had limited success in providing housing for the neediest. Therefore, private rental housing is important as a reality that is part of the life cycle of poorer individuals and households (Pugh, 1995).

Most discussions of rental housing are reduced to one singular cause – rent control. Kumar (2001) notes that in urban India, recourse to rent control legislation is seldom used at the lower-end rental housing markets with disputes resolved locally through political and economic power brokers. If rent control legislation has stifled letting, it has done so at the upper-end tenancies (as evidenced by high vacancy rates) and more so in relation to city-centre residential and commercial tenancies. Therefore, attempts to produce rent control legislation, in places like Malé, are likely to be of little relevance to the poor.

Having exposed the deficiencies of existing theory to explain adequately the process of housing development in Malé, and having determined their limited relevance, it would be useful to look into developing a set of research questions to help understand the situation better. As stated at the outset of this section, affordability is not an issue. One principal



issue that has greater relevance has been the fact that, at least in Malé, developers cannot purchase land for housing development. At the same time, limited investment opportunities coupled with the fact that housing as an asset that appreciates in value in most economies, have attracted investment from private developers to rental housing.

Another important issue is that plot-holders cannot sell their land, nor borrow money to develop it, because of low institutional development. By virtue of the fact that land belongs to the State and that neither existing legislation nor recent newly developed legislation permits purchase and/or sale of land freely, borne out of absolute scarcity of land, a combination of the two principal issues above has led to a convenient arrangement that satisfies the needs and requirements of both the developers and the plot-holders. Changes to any of the variables contained in the arrangement, will jeopardise and undermine the whole process. Already, there are signs that recent developments and interventions are beginning to vilify the viability of the process. What is important to emphasise here, is that the developer financed rental housing development process has taken place in Malé *despite* inadequate State intervention, and not necessarily *because* of it.

## CHAPTER 3: RESEARCH METHODOLOGY

### 3.1 Introduction

As pointed out in Chapter 1, despite a lack of housing finance institutions or formal instruments, households in Malé have continued to finance and construct housing. The majority of such housing has been multi-storey construction involving relatively large sums of money. Considering the relatively low per capita income, and in particular a paltry median household income (MPND, 1999), the development of private housing through developer finance would be the focus of the study. This process has taken place by the interplay of three principal groups. Firstly, *developers* who cannot buy land, but rent from plot-holders. Secondly, *plot-holders* who cannot sell their land nor borrow money to finance housing development, but can lease the land to developers. Thirdly, affluent in-migrant *renters* who can 'afford' to rent the housing created through the process, and thereby provide the return from the investment.

### 3.2 Justification

As explained in Chapter 2, housing finance studies and research in developing countries have largely been limited to formal institutions and instruments. As discussed below, there is a general lack of literature on the affordability aspects of private developer led of housing finance in developing countries. Most studies on affordability have been restricted to developed countries, and for that matter looked into measures of affordability. See Hartman (1988), Hulchanski (1995), Lane (1997) for typical debates on such measurements of housing affordability. Stone (1993) with his concept of "shelter poverty" while challenging the conventional conception of affordability, has restricted his debate to improving the measurement of affordability. Others, such as Mitlin (2001) and Baumann (2001) in their suggestion that development interventions must be associated with improving the quality of housing, whilst maintaining affordability, have targeted largely on instruments for intervention. Therefore, this research contributes to the existing debate by, *inter alia*, seeking to investigate and identify strategies that households adopt to finance the

construction of housing and by considering the implications of these in an overall housing policy and theoretical framework.

One of the intriguing issues, as indicated in the thesis, is determining the extent to which in the Malé situation of lack of adequate legislative, judiciary and regulatory support from the Government, the potential of developers has been constrained. It also sheds light on the extent to which the motivation for developers comes more from the satisfaction of helping another than mere financial gain, instilled very much by the close-knit community and homogeneity of population discussed in Section 1.5.1 of Chapter 1. The originality of the contribution is the unique way that housing has been developed in Malé through private developers and the generalisations drawn that are of relevance to similar situations elsewhere in the world. The chosen grounded theory research methodology will also ensure originality and contribute to new knowledge, if not the contents then the way of looking at them and subsequent explanation.

### **3.3 Research Methodology**

This research can usefully be classified as an emotionalist study, based on an ethno-methodological approach using grounded theory method. It is emotionalist, in contrast to positivist and constructionist, in that it deployed 'open-ended interview techniques with active sense-making respondents' (Silverman, 2001). Grounded theory (GT) is a research method that offers a comprehensive and systematic framework for *inductively* building theory. The theory is discovered, developed, and provisionally verified through systematic data collection and analysis of data pertaining to a particular phenomenon (Strauss and Corbin, 1990). The careful and precise application of this method ensures that the theory emerging from this study will meet the criteria of good science: generalizability, reproducibility, precision, rigour and verification.

Grounded theory has its roots in the social sciences. More specifically, GT is rooted in the symbolic interaction tradition of modern sociology (Glaser & Strauss, 1967; Chenitz & Swanson, 1986) (see Figure 5.1 in Chapter 5 for a basic map of modern sociology). Symbolic interactionism (SI) is a theory about human behaviour; it is an approach to the study of human conduct and human group life (Chenitz & Swanson, 1986). Symbolic interactionism is concerned with the meanings of events to people and the symbols they use to convey those meanings (Baker, et al., 1992). Symbolic interactionism focuses on the inner or 'experiential' aspects of human behaviour, or how people define events and reality and how they act according to their beliefs (Chenitz & Swanson 1986). In other words, SI

holds that people are in a continual process of interpretation and definition as they move from one situation to another.

Charmaz explains that grounded theory: (1) stresses discovery and theory development; (2) shapes research processes and products from data; (3) checks developing ideas with further specific observations; (4) studies process and assumes that “making theoretical sense of social life is itself a process” (Charmaz, 1983).

In recent years debates about the current status of GT have been growing. In fact, questions have been raised about “the diffusion and dilution of the GT method” (May, 1996:310). Moreover, issues have been raised about the quality of research labelled as GT (Benoliel, 1996; May, 1996), and other scholars have attributed this to a lack of mentorship in the method by originators of GT or their followers (May 1996, Wilson & Hutchinson 1996). At the centre of the GT debate is Strauss and Corbin’s 1990 text, which has been criticized for deviating from the original method (Wilson & Hutchinson, 1996). Strauss and Corbin suggested a new coding technique using “a coding paradigm involving conditions, context, action/interactional strategies, and consequences” (Strauss and Corbin, 1990:96) similar to which is used in this research. Glaser responded that Strauss and Corbin were no longer doing GT, but had explicated a new method that Glaser referred to as ‘full conceptual description’ and ‘forcing’ the data and theory, rather than allowing emergence. Subsequently, Glaser (1992) put forth his ‘corrected’ version of generating GT emphasizing ‘emergence’ (Wilson & Hutchinson 1996).

Although Strauss and Corbin (1990) has been criticized for being procedural and cumbersome in the number of steps they outlined, Benoliel (1996) and Melia (1996) do not share Glaser’s perspective that Strauss and Corbin are no longer doing GT. In fact, they view Strauss and Corbin’s work, and the work of other grounded theorists, as adding to the initial work of GT in the *Discovery of Grounded Theory* (1967) by Glaser and Strauss. Furthermore, Benoliel (1996) and Melia (1996) share the perspective that in order for knowledge generation to take place, methodologies must be re-examined, revised, further explicated, and improved in terms of clarity.

A large portion of published GT research has also been criticized for failing to adhere to the underlying principles of the GT method. In a study analysing 146 GT publications between the years 1990 and 1994, Benoliel (1996) found three variants of GT that she labelled: GT approach, GT methods and GT research. Grounded theory approach referred to research that used interview data only and failed to identify basic social processes. Articles labelled as GT methods tended to discuss GT as a method, rather than reporting research. Articles identified as GT research “focused on the social psychological processes



of people undergoing major life changes, and to a variable extent, on the environmental circumstances influencing the course of events” (Benoliel, 1996:413). Benoliel concluded that what distinguished GT research from GT approach and discussions of GT as a method are: the constant comparative method, theoretical sampling, multiple comparison groups and theoretical coding.

The common deficiencies of GT as practised in sociological research have also been highlighted by some academics. Becker (1993) examined the purpose statements, sampling techniques, and data analysis strategies of published studies and concluded that in many cases the research “had borrowed pieces of GT method but had not adhered to the critical components” (Becker, 1993:254). Becker described five pitfalls that existed in published GT research: (1) selective rather than theoretical sampling, (2) failure to allow the problematic situation (focus of the study) to emerge from the data, (3) using the wrong theoretical lens (theoretical perspective), (4) lack of adherence to the constant comparison approach which calls for the simultaneous collection and analysis of data, and (5) the excessive reliance on computer programs to identify core variables based on frequency of occurrence.

Wilson and Hutchinson (1996) identified six methodological mistakes in GT that they asserted are reasons why some studies are not GTs. These were: muddling qualitative methods, generational erosion, premature closure, overly generic labels, importing concepts, and methodological transgression. According to these authors muddling qualitative methods referred to the researcher ‘compromising’ the tenets of the GT approach by integrating canons or techniques from other qualitative methods (for example, phenomenology). Generational erosion implied the “undermining of the original canons for GT research” (Wilson and Hutchinson, 1996:123). In essence, this methodological mistake refers to the Strauss and Corbin (1990) text, and the subsequent debate and criticism from Glaser (1992). In premature closure, the textual or narrative data is ‘under-analysed’ thereby preventing the researcher from moving to higher levels of analysis and interpretation.

According to Charmaz (1990) codes and categories reflect emerging ideas that help the researcher examine the data and ask analytic questions about it. So, codes and categories help the researcher to construct an analysis of the data rather than merely a description. Being ‘overly generic’ causes the researcher to select names or labels for conceptual processes that are not ‘situation-specific’. Importing concepts occurs when researchers adapt preconceived notions, from their discipline or from the literature, as the

concepts for their study data. Wilson and Hutchinson (1996) warn that, importing concepts “fails to provide an original and grounded interpretation” (1996:124).

Finally, methodological transgression occurs when the tenets of GT philosophy and method are violated. They stated that this violation most often occurs in quantitative studies in which open-ended questions are added to survey instruments. However, they caution against confusing methodological transgression with triangulation and with mixed quantitative and qualitative designs, which when conducted according to their own philosophical tenets are legitimate methods (Wilson and Hutchinson, 1996).

Notwithstanding all the arguments for and against GT as a method and its effectiveness or relevance identified above, a number of the basic features of grounded theory make it an appropriate method for this research.

1. This research is focused on exploring and explaining the process of developer financed private housing construction which is well suited to grounded theory methodology as it specifically includes analysis of process. Within grounded theory methodology the term ‘process’ is used to describe ‘the linking of sequences of action/interaction as they pertain to the management of, control over, or response to, a phenomenon’ (Strauss and Corbin, 1990:143). Process is the analyst’s way of accounting for or explaining change. The process of private developer financed housing development in Malé is complex with several actors and stakeholders. The analysis of this process, in terms of the sequences of actions and interactions, help explain the phenomenon in terms of how it is managed and controlled, while at the same time how developers, plot-holders and renters respond to changes in circumstances. Another important aspect of this research is the exploration of the way households manage ‘affordability’. The research has been constructed to guide data collection and analysis in ways that also highlight and account for any changes in investment decisions in housing. In this way process is analysed both as progressive movement characterized by phases or stages, and as ‘non-progressive movement, i.e., as purposeful alterations or changes in action/interaction in response to changes in conditions’ (Strauss and Corbin, 1990, p. 52). This attribute of grounded theory methodology is applied to examine the interactions of the three stakeholders, i.e., plot-holders, developers and renters in the existing socio-economic environment of Malé to help understand the process of developer financed housing construction and to explain how they respond to changes in circumstances.

2. Grounded theory methodology directly links macroscopic issues to the phenomenon under investigation. It requires that broader, contextual issues, that are shown to influence the phenomenon under study, are given appropriate recognition in the development of theory. Rather than focusing the investigation by disregarding these broader conditions, every effort is made to acknowledge and account for them. As such the wider influences on the process under investigation are determined and explored to examine the extent to which they impinge upon the decisions of the key participant groups. How attributes such as in-migration, income levels, institutional support (or lack of it), and the capacity of the construction sector have impacts on the decision processes are explored. This attribute of grounded theory methodology is applied to understand the overall socio-economic milieu and how it affects decision processes among the stakeholders.
3. Grounded theory makes its greatest contribution in areas in which little research has been done. As stated previously, little research has been conducted specifically into the management of aspects of private housing finance in developing countries, and in particular, in a land-scarce small island developing state such as Maldives. In this respect, grounded theory is an appropriate method for this study as it generates theory that can be used as a precursor for further investigation of this phenomenon and related issues. Other qualitative research techniques, quantitative methods, or a combination of both, can then be used in subsequent studies to test, verify or extend the qualitative hypotheses and theory that emerge from this research.

What most differentiates grounded theory from much other research is its explicitly emergent nature. Essentially, it does not test a hypothesis. On the contrary, it sets out to find what theory accounts for the research situation as it is. In this respect it is like action research: intending to understand and explain the research situation. The aim, as Glaser (1992) in particular states, is to discover the theory implicit in the data.

Glaser (1995) believes that Strauss and Corbin (1990) had grossly misrepresented the most important features of grounded theory. According to Glaser, the heart of the difference is between allowing the theory to emerge from the data as opposed to forcing it into preconceived frameworks. As such, Glaser (1995) strongly argues for an emergent approach to theory-construction, and against preconceptions and “forcing”. This distinction between “emergence and forcing”, as Glaser frames it, is fundamental to understanding this methodology. Much research tends to lean more to hypothesis-testing

rather than to emergent research where the internalised research processes and the thesis structures are generally those of testing a preconceived hypothesis, not of emergence. In particular, in grounded theory the place of literature is different. It is well documented that when utilizing a grounded theory method the researcher should avoid conducting a comprehensive literature review prior to commencing data collection and analysis (Stern, 1980; Stern & Allen, 1984; Lincoln & Guba, 1985; Stern, 1994; Strauss & Corbin, 1994; Hickey 1997). By avoiding a detailed literature review at the beginning of the study it is more likely that the emergent theory will be grounded in the data. So is the way in which both methodology and theory develop gradually as data and interpretations accumulate.

Another view is proffered by Hutchinson (1993), who suggests that a literature review should precede data collection and analysis in grounded theory, in that, it is the review of the literature that can identify the current gaps in knowledge, or help provide a rationale for the proposed research, as was the case in this thesis. In this regard, the arguments of Lincoln & Guba (1985) and Stern (1994) can be located in a position that has the starting point, that there is a distinct dearth or even absence of knowledge concerning the phenomenon, and therefore a grounded theory method would be suitable. Consequently their arguments appear to occupy a position further along the continuum of knowledge generation. Indeed, the literature review in Chapter 2 identified a dearth of knowledge on private developer led housing finance systems in developing countries, especially in small island communities such as Maldives. In particular the processes and interactions, the motivations and rationale for such investment, the ways and means through which renters make the housing “affordable” are missing or not adequately explained in existing literature.

Judgments about the rigour of research are often based on narrow criteria: criteria which make sense only for the methodology for which they were developed. Grounded theory has its own sources of rigour. It is responsive to the situation in which the research is done, and there is a continuing search for evidence which confirms the emerging theory, rather than using data to support a preconceived hypothesis. It is driven by the data in such a way that the final shape of the theory is likely to provide a good fit to the situation. In fact, Glaser suggests two main criteria for judging the adequacy of the emerging theory: that it fits the situation; and that it works – that it helps the people in the situation to make sense of their experience and to manage the situation better.

A constant criticism of qualitative methods is their inability to relate to aspects of the real world (Hammersley, 1992), although it is generally accepted that they have their own internal logic and validity. Usually, the goal of experimental science is to discover laws and

universal truths that may be generalised and widely applied. The goal of social research such as in this thesis involving humans, however, is often to describe and understand the rich and complex phenomena they engage in. Therefore, the relationship between theory and reality in such a grounded theory study is complex. Descriptions and understandings are usually placed at a certain time and located in specific societies and social contexts. The goal, then, of such studies is to understand contemporary social relationships.

Some doubts remain also, on the merits of grounded theory in contributing to knowledge. However, there is a good chance it will be an addition to the literature because, most hypothesis-based research builds on what has gone before. At the same time, by being responsive to the research situation and finding out what is really happening, there is more of a chance of explaining the processes inductively, rather than deductively test a hypotheses based on pre-conceived ideas and notions. Grounded theories are developed directly from data collected during research in contrast to theories which are logico-deductive in nature. Comparative analysis is the basic method: incidents are categorised, their properties are identified, and models are constructed. There is a chance that the theory is one someone else has come up with using more traditional methods. Nevertheless, it still becomes a contribution to knowledge, and a valuable one, because the theory previously offered has been cross-validated, using a very different methodology.

### **3.4 Research Aims and Principal Research Questions**

The principal aim of the research is to investigate the developer financed construction of housing. In doing so, implications for housing policy and practice will be identified, leading to an understanding of housing affordability, private finance and development in terms of theoretical explanations.

Particular aims of the research are:

- To use grounded theory methods to build theory about a specific aspect of household finance where no theory currently exists.
- To generate a theory from this study that will be an original contribution to the knowledge base of the emerging field of housing investment.

For reasons explained in the previous section on research methodology, this research does not seek to explicitly test a hypothesis. Instead, it is examining a process and based on the observations, inductively derives an original theoretical understanding grounded in the



findings of the research. As such, this research is based on the following complex research question.

**“Private rental housing in Malé is being developed in situations of absolute scarcity of land and low levels of institutional finance. What motivates private developers to invest in the process of procuring ‘affordable’ rental housing? How is the viability of the process threatened? What interventions are required for the sustainability of this process?”**

The main keywords or phrases that underpin the research are defined below.

#### **Absolute scarcity of land:**

The ‘absolute scarcity of land’ here encompasses physical scarcity – non-availability of undeveloped land because of physical limitations of the island nature, and administrative scarcity – where access to land through purchase is not possible. In Malé, land has not been available for allocation for residential development, since the 1980s. At the same time there are no procedures for acquiring land, which is almost entirely State owned, as transactions on land ownership are not allowed. As a result developers cannot purchase land on which to develop housing, nor can plot-holders sell their land. Another dimension to scarcity of land has been the continued subdivision of existing housing land, leading to plots that are not viable for developing into multi-storey rental housing.

#### **Institutional support:**

The term ‘institutional support’ used here refers to the supportive legislative, regulatory and administrative framework that is sufficient in terms of suitability, inclusivity, effectiveness and pragmatism to facilitate the process of private investment in housing. These are: legislative, judiciary and regulatory instruments; administrative and procedural requirements; regulation of banking and financial services; regulation of professional building services and construction; availability of institutional finance at favourable terms conducive for housing development; and, macro-economic policies and strategies to redistribute wealth and income among the population.

#### **Process of procurement:**

The ‘process’ refers to developer financed multi-storey rental housing construction on plot-holders’ land. This process begins with the lease of land from a plot-holder for the

construction of multi-storey housing by a developer, through a formal or semi-formal contractual agreement. The displaced plot-holder family is provided alternative housing or monetary compensation during the construction period. Upon completion of construction the plot-holder gets one or more floors, as agreed, while the rest of the floors are leased by the developer to recover costs. The lease agreement is usually for less than 10 years, the maximum allowed by law. However, developers often circumvent this by drawing up a concurrent lease which effectively extends the period, as discussed in Chapter 1, Section 1.12. At the end of the lease period, the whole building reverts back to the plot-holder at zero cost.

**Affordable:**

The term 'affordable' here differs extensively from the conventional affordability definitions as discussed in Chapter 2. Although housing may not be affordable in a conventional sense, it can be made affordable by the renters through several strategies, through multi-family living; pooling of funds; sacrificing on luxuries and non-necessities; recourse to extra-household remittances; and, bearing a high rent to income ratio. The concept of affordability is also distorted by the fact that for the in-migrant population, rental housing is the only option, despite generating higher income than the host population. The concept of affordability is also, at least in the Malé situation, inherently transient in nature. Many of the in-migrant families, who face affordability problems, are temporary residents and their economic and social situation changes drastically over time. Many members return to their home island, others form new nuclear households and move out. In fact, families who remain as tenants for a long term tend not to have any problems of affordability in terms of rent to income ratios.

**Interventions:**

The 'interventions' refer to policies, strategies and practices adopted by the Government to facilitate the process of housing development, which impacts on developer financed housing production. These interventions are essentially concrete steps to alleviate the housing shortages faced by the population, such as public housing and government financed housing construction. These can also include changes in policy by the Government from public provision of housing (municipal housing) to enabling strategies to attract private and communal investment to the production of housing. In addition, programmes to promote public awareness to remove serious bottlenecks in the delivery of affordable housing strategies are among these.

### 3.5 Research questions and survey questions

The research questions and their corresponding survey questions are summarised below.

**Table 3.1: Summary of Research and Survey Questions**

Research questions	Survey questions
<ul style="list-style-type: none"> <li>How affordable is the private rental housing created through developer-financed construction?</li> <li>What strategies do these households adopt to ensure that the housing is 'affordable'?</li> </ul>	<ul style="list-style-type: none"> <li>What is the social make up of the tenants?</li> <li>What are their sources and elasticity of income?</li> <li>What is the composition of their monthly expenditure?</li> <li>What is the composition of the household, in terms of number of rooms and number of members?</li> <li>How many members, from within and from the outside, contribute to household expenses?</li> </ul>
<ul style="list-style-type: none"> <li>Why do plot-holders participate in the process of developer-financed construction?</li> <li>What cultural, philosophical or ideological standpoint do plot-holders have on this process?</li> <li>How useful is this process in achieving the objectives and aspirations of plot-holders?</li> </ul>	<ul style="list-style-type: none"> <li>How do the plot-holders feel about the suitability and appropriateness of this mode of construction?</li> <li>What were the reasons for participation in the process, in priority order?</li> <li>How have the relationships among neighbours / friends / developer / family members changed, if any, during and after the completion of the procurement process?</li> <li>What was the overall satisfaction with the completion of the project, in terms of achievement of objectives/aspirations?</li> <li>What are the plot-holders' key strategic decisions?</li> </ul>
<ul style="list-style-type: none"> <li>Why do developers choose to invest in preference to other forms of investment?</li> <li>What are the risks, returns and status implications of their decisions?</li> <li>How do developers obtain financing for investment in housing?</li> <li>What motivates developers to invest in housing, which in the longer term is passed onto the hands of the plot-holder?</li> </ul>	<ul style="list-style-type: none"> <li>What are the sources of finance for construction? To what extent are bank loans accessed?</li> <li>What other investment opportunities exist in the economy?</li> <li>What are the reasons for embarking on developer-financed housing construction?</li> <li>What are the unit costs of construction, unit rental income, and unit financing costs?</li> <li>How have the returns from rental housing changed over the last 5 years?</li> <li>How have costs of construction changed over the last few years?</li> <li>What are the legal/administrative/technical and managerial problems associated with the process?</li> <li>To what extent do developers consider the economic risks of the investment, and how do they hedge against risks?</li> </ul>

The research questions and survey questions are divided into three groups relating to the three classes of respondents, i.e., plot-holders, renters and the developers. In a nutshell, the aim of the research fieldwork is to understand the process of developer financed housing construction, determine the motivation of the developers to invest, and to assess the affordability of the housing to the renters by exploring the strategies they adopt to make the housing affordable. The contextual analysis at the beginning of the thesis and



secondary data collected help put these findings in perspective while the conceptual review and theoretical analyses help understand and explain the processes.

### 3.6 Methods

A combination of quantitative and qualitative approaches were utilised for both induction and deduction of theory. Quantitative methods were used for collection of expenditure data from rental households, and qualitative techniques were utilised to explore in-depth reasons and justifications for decisions and expression of feelings and ideas.

The following table summarises the primary data sources, sampling techniques, and the methodological approach taken for the three main areas of interest in the research.

**Table 3.2: Primary Data Sources, Sampling Techniques and Approaches**

Area of interest	Size and type of sources	Sampling technique	Approach/Outputs
Affordability to renters; strategies adopted by renters to make housing 'affordable'	51 households renting from developer-financed housing	Convenience or purposive sampling	Quantitative: assessment of breakdown of monthly expenditure for a 4 month period 10/2002 – 01/2003, sources of finance, occupancy rates, household size
Households' decision to participate in the process	30 plot-holders who have participated in the process	Convenience or purposive sampling	Qualitative: identification and prioritisation of reasons for participation in the process
Developers' motivation and willingness to invest in housing development	10 developers who have been engaged in housing construction through this process	Convenience or purposive sampling, snowballing	Qualitative: determining rationale for projects, return on investment, motives for financing

Solicited expenditure diaries are an integral tool for sociological research. Branch (1994) suggests that recording expenditure/consumption in diaries gives more accurate data than recall surveys, especially for frequently purchased items like food. Because an interview marks the start of the diary-keeping period, the upwards bias attributed to recall estimates are also avoided. Furthermore, evidence exists that different recall periods affect reliability. Scott and Amenuvegbe (1991) find that average daily expenditures reported by respondents fall by almost three percent for every day added to the recall period, with the greatest decline for the more frequently purchased items. This tendency to forget earlier transactions – what Deaton (1997) calls “progressive amnesia” – is relevant to the preference of solicited diaries to recall surveys. Diary recorders usually make written reports on the day expenditures occur, which should theoretically minimize recall errors.

Scott and Amenuvegbe (1991) also suggest that after a threshold number of purchases during the recall period, respondents switch from reporting their actual expenditures to what they think are their usual expenditures, which is invariably prone to error, leading to underestimation where exceptionally high expenditures tend to be overlooked. Because larger households tend to generate more transactions for a given period, they are more likely to reach the threshold where respondents switch away from reporting actual expenditures. Moreover, a larger household may have a higher proportion of people who are non-nuclear family members and who make purchases that the respondent does not know about (Gibson, 2002). Furthermore, recording in diaries is particularly effective for food expenditures and day-to-day non-food expenses.

Therefore, in this research expenditure diaries were used to make quantitative assessment of household expenditures of renters. These were kept in square ruled exercise books supplied to the households who jotted down the expenses they made everyday for the 4 month study period. The expenses were listed in 4 columns, viz., date, expense category, description, and amount. Major expense categories households were asked to classify are: rent, utilities (electricity, water, telephone, cooking gas or other fuel), food expenses, medical expenses, and others. The responsibilities of keeping the diaries up-to-date were assigned to the heads of the households who made the major expenditure decisions. They were asked to give a brief description of the items purchased to verify the category into which they fall.

To increase accuracy, during the first month of the survey, it was necessary to monitor the data weekly to ensure that timely entries were made, rather from recollection, and to guide the respondents to minimise errors. Furthermore, during this intense contact period, other characteristics of the renter households were identified such as the total number of members in the household, members within and without who contributed to household expenses, the size of the dwelling unit in terms of number of rooms. Out of the sixty households who initially started keeping the diaries, data from 9 households were discarded because of unreliable or incomplete entries and lack of cooperation.

Secondary data were also collected to determine social and economic implications of the process on Malé. Collected data include the Census 2000 statistics, national economic and social indicators, results of the Poverty and Vulnerability Survey 1998 (MPND, 1999), data from Maldives Housing and Urban Development Board (MHUDB) on housing construction permits and permits for habitation after construction, and preliminary findings of the housing income/expenditure survey carried out by MHUDB for a World Bank technical assistance project in 2002. In addition, other information collected include



the Land Act (Law 1/2002) and subsequent draft regulations, which would have some impact on the process, in that it legislates longer land lease periods (up to 15 years), allows development of condominiums, and regulates sale and lease of property.

### **3.7 Data Collection**

As mentioned at the outset, the data was collected in Malé during October 2002 to February 2003. To preserve confidentiality and anonymity, to maximise cooperation, and because of the small size of the island with ease of access to respondents, no assistants or co-researchers were used in collecting the data. This also helped relax respondents and facilitated expression of ideas, opinions and views. However, without the timely and invaluable cooperation received from most of the heads of renter and plot-holder households, and the management of property developer firms and individuals, it would have been impossible to undertake the research in the limited time available. Their generous assistance is, both collectively and individually, duly acknowledged and gratefully appreciated. In particular, the Muslim holy month of Ramadan, when fasting and abstinence from bodily pleasures during the day time combined with increased religious activity is dutifully observed, fell within most of the month of November. The tolerance they showed in divulging the required data and information, during this difficult period when patience wears thin and tempers readily flare, need special mention.

In this study, data gathering methods included semi-structured interviews, expenditure 'diaries' of rental households, and interviews of developers and officials. In grounded theory studies data gathering and analysis are tightly interwoven processes; data analysis guides future data collection. In conforming to this, data was gathered from the sample households in a two-stage process.

A piloting exercise was conducted during the first week of the fieldwork. Three households were visited and respondents were invited to: (a) trial the income-expenditure diary for one week; (b) respond to, and comment on, the draft interview schedule for the first round of semi-structured interviews; and, (c) comment on their experiences with housing finance during their lifetime. This process enabled the fine tuning of the data gathering methods and heightened theoretical sensitivity towards the phenomenon of housing finance. Adjustments were made according to the experiences of the pilot survey.

For the 30 plot-holders surveyed, semi-structured interviews were used as the primary means of data collection. Arrangements were made to interview each of the respondents in the initial study sample on two occasions during the course of the fieldwork. The first

round of interviews was structured to gather data about the widest possible range of issues associated with the phenomenon under study. This included a detailed case study of the respondents' existing and previous housing situations. The research questions guided the data gathering process. Outputs of the survey were the identification and verification of the main reasons for participating in the process.

The reasons that the plot-holders gave in the interviews for participation in the process were synthesised into six clearly identifiable categories. They are: need for shelter; non-availability of institutionalised housing finance; as a source of future income; having no financial burden; lack of funds for self-finance; and low-income and/or savings. The second round of interviews were used to: (a) gather new data about known concepts and categories that were developed about the phenomenon, for instance, identifying and clarifying the overriding reasons for participation; (b) gather new data about the phenomenon, such as eliciting the fears and concerns they have about the process, and determining the changes in the nature of the relationship they have with developers, family members, neighbours and friends throughout the process; and, (c) involve the respondents in a process of testing and verifying data and the emerging theory, by exploring the underlying cultural and institutional influences on the process. This resulted in prioritising the reasons/causes for participating in the process among all 30 plot-holder households. Ranking was done by each plot-holder for all causes/reasons.

The Muslim holy month of Ramadan which fell during the fieldwork period, has significant impacts on the economic and social life of the residents of Malé, especially islanders who are self-employed or employed in labour intensive jobs such as in the construction sector. Ramadan is a period of strict fasting with total abstinence from food, water and other bodily pleasures during the day (from dawn to sunset) complemented by an enhancement of spirituality, accompanied by increased supplication and prayers, ardently followed by the people of Maldives who are all Muslims. At sunset, the fast is broken with a lavish feast, often followed by several amusement and entertainment activities until early in the morning. Traditionally male workers, who are employed outside their island of abode, return home to spend Ramadan with their families. Several labour intensive businesses, including most construction activity, grind to a halt. Public sector working hours, usually from 07:30-14:30 hrs, are reduced by two and half hours daily, to 09:00-13:30 hrs. Many self-employed craftsmen and many taxi drivers, who do not generally have fixed monthly incomes, take time off, reducing their earnings considerably.

As explained earlier, each of the respondents in the rental households was requested to maintain a written diary of household expenses for the four months of the fieldwork.

Initially, for the pilot study, income and expenditure were tabulated. However, determining income was very difficult during the pilot study, as reporting of incomes were too inaccurate with some of the members of the households self-employed and others with multiple employments, that for the main survey, household expenditure alone was selected as it was both reliable and verifiable. The respondents were encouraged to make entries into a tabulated book which was provided and how to maintain the entries explained briefly. Every effort was made to ensure that the entries were simple and straightforward and that respondents were comfortable with the technique and that they were clear about the purposes of this data gathering procedure. Assurances were given that the collected data will not be publicised in ways that can identify the respondents, and that the data will be presented in aggregate form to ensure this.

In this study, these diary entries: (a) provided the research with information about critical incidents that related to the phenomenon under investigation, such as the incidence of Ramadan and its impacts on economic productivity and daily life, and to what extent the school holidays and start of new academic year affected expenditure patterns; (b) served as a record of the respondents' perceptions of their household expenditure, for instance, being able to manage them better by reducing unnecessary expenses, not only because a record is being kept, but also because someone outside is going to see it; (c) acted as a triangulation strategy, to ascertain some of the responses from the plot-holder and developer interviews, for example, rent to income ratios, proportion of utility costs to total expenses and occupancy levels, which have a bearing on affordability; and, (d) stimulated and directed the data gathering process in subsequent interview sessions with the plot-holders and developers. The primary objective here was to gather the maximum amount of relevant data without the process becoming tedious for the respondents.

The interviews with the ten developers were conducted one at the beginning and one towards the end of the fieldwork. In fact, the initial contacts with the developers were essential to identify suitable plot-holders, i.e., those with experience from participation in the process, and renters who were living in accommodation created through the process. Semi-structured interviews lasting 30 to 90 minutes started with open ended questions. Probing questions were asked towards the end of the interviews and 1 or 2 developers who felt comfortable, divulged some financial data which are presented to indicate the scale and size of some of the developer firms.

Collection of secondary data was by visiting officials of government agencies and financial institutions throughout the fieldwork period. As far as possible, processed data (in digital format) that had not been tabulated were obtained to enable comparison to the

research findings, and allow reclassification and grouping. Circumstances and conditions under which the data were collected and the objectives of the data collection, were also identified to ensure that interpretations reflected the inherent assumptions on which the data were based.

### **3.8 Application of Grounded Theory to the Research**

Grounded theory demotes the idea that the discovery of relevant concepts and hypotheses are *a priori* to research (Glaser and Strauss, 1967; Glaser, 1978; Charmaz, 1983; Strauss, 1987; Strauss and Corbin, 1990; Corbin and Strauss, 1990; Glaser, 1992; Strauss and Corbin, 1994). Indeed, grounded theory posits that theory is derived from data and cannot be divorced from the process by which it is developed. Most hypotheses and concepts are generated and interpreted in relation to the data throughout the research (Glaser and Strauss, 1967). Charmaz (1983) reiterates Glaser and Strauss (1967) when she contends that data collection and analysis are undertaken simultaneously, interpretation is formed through data discovery and vice-versa. The approach allows for emerging ideas because it provides for further data collection. It accepts that one of the main strengths of the grounded theory approach is one where data and ideas are derived through the research rather than *a priori*. Verification is secondary to understanding processes, not simply the processes of the phenomenon but by understanding that social life itself is a process. Data is analysed as it emerges and through coding, order is created.

#### **3.8.1 Literature Review**

In general terms, analysis makes use of constant comparisons. As incidents are noted, they should be continually compared with other incidents for dissimilarities and likenesses (Corbin and Strauss, 1990:9). At the beginning of this research, a literature review was conducted to identify concepts and practices in private investment in housing development, in particular, traditional and alternative concepts on housing affordability (Huchanski, 1995; Lane, 1997; Stone, 1993); recent approaches to addressing affordability (Mitlin, 2001; Baumann, 2001; and, Berner, 2001); theoretical basis for investment decisions (Pike and Neale, 1993; Malpezzi, 1991; Magni, 2002); the productive function of housing investment (Brito and Pereira, 2002; Shroder, 2001; Hochguertel and van Soest, 2001; Munro and Leather, 2000; Arimah, 1997; and, Garrod, et al, 1995); approaches enabling housing investment (Zhu, 1997; Mukhija, 2001; and, Hutchison, 1994); economic theories of consumption in modern society (Hansen and Schrader, 1997; and, McGregor,

1998) including traditional theories (Deaton and Muellbauer, 1980; and Blundell, 1988; Deaton, 1992; Modigliani and Brumberg, 1980; Friedman, 1957; and, Devarajan and Go, 1998) and alternative theories of consumption (Becker, 1981; Shefrin and Thaler, 1988; and, Arrondel and Lefebvre, 2001).

This was followed by a discussion of theoretical constructs on investment and consumption decisions (Green, 1993; Etzioni, 1988; Rivoli, 1995; Renaud, 1985; and, Buckley, 1996). This is a standard means of generating theory and, therefore, was accomplished early in the study to put the “story straight” (Glaser and Strauss, 1967; Strauss and Corbin, 1990:116-142). Making comparisons assists the researcher in guarding against bias. Comparisons also help to achieve greater precision (the grouping of like and only like phenomena), (Corbin and Strauss, 1990:9). Indeed, as one is seeking regularities; this also creates order and helps with data integration.

### 3.8.2 Data Sampling

Data sampling is based on the grounded theory technique of *theoretical sampling*. Theoretical sampling is undertaken on the basis that concepts have proven theoretical relevance to the evolving theory (Strauss and Corbin, 1990:176). Data collection is guided by theoretical sampling, or sampling on the basis of theoretically relevant constructs. Theoretical sampling involves three processes. First, *open sampling* which is carried out in the early stages of the research process involves purposive, systematic and fortuitous procedures to discover and identify data which is relevant to the research question. This phase of open coding involves selecting and naming categories from the analysis of data. As the initial stage of data collection it describes the overall features of the phenomenon of developer financed rental housing process in Malé, which is identified as the core category.

Second, *relational or variational sampling* is associated with axial coding. It is used, either purposive or systematic, to locate data which confirms, elaborates and validates relations between categories or limits their applicability. In axial coding, data are put together in new ways by utilising a system of coding that seeks to identify causal relationships between categories. The aim of the coding paradigm is to make explicit connections between categories and sub-categories. Identifying primary and secondary causes and effects of the process of developer financed housing development underline this stage in this research. The causal conditions identified from the research are: the plot-holders’ decision to participate in the process; the housing ‘affordability’ of renters; and, the developers’ willingness to invest in rental housing. The intervening conditions, which relate to the



socio-economic background variables, impinge on the causal conditions. The consequences of these lead to: security of income and shelter for the plot-holders; increase in housing stock of Malé; and, accumulation of capital for the developers.

Finally, *discriminate sampling* is linked to selective coding, with deliberate and directed selection of persons, sites or documents to confirm and verify the core category and the theory as a whole, as well as to saturate poorly developed categories. The situation in Malé incorporates other categories that stand in relationship to the core category as conditions, action/interaction strategies, or consequences. These stages are explained in detail later in this chapter complete with examples from the research data.

As indicated in the chapter on methodology, the sampling was undertaken purposively which meant choosing individuals and households for collecting data that demonstrated similarities and variations in the categories and help understand what happened in the process of developer financed private rental housing construction. As with the coding, the distinction between *relational or variational sampling* and *discriminate sampling* became unclear. Discriminate sampling is direct and deliberate and is indicated in the choice of interviewees and survey. Because the phenomenon being investigated was that of developer finance in private housing construction, in this research, it was limited to the households that had been in the process of developer financed housing construction, i.e., plot-holders who had housing constructed on their plots by private developers; renters who were renting accommodation from such housing; and, developers who have embarked on financing and construction of such housing.

According to Strauss and Corbin (1990), in *discriminate sampling*, a researcher chooses the sites, persons and documents that will maximise opportunities for verifying the story line and relationships between categories (Strauss and Corbin, 1990, p 187). Sampling in grounded theory studies is concerned with the representativeness of concepts in their varying forms, which may not necessarily represent characteristics of the total population. In each instance of data collection, evidence of its significant presence or absence was sought, and asked why. Grounded theory studies look for incidents and events that are indicative of phenomena (Strauss and Corbin, 1990). For example, questions are asked about how the plot-holders without access to institutional finance or savings go about developing their land; why are the developers investing in rental housing construction, what are their motives and how does it fare against other investments; who are the tenants, is the housing affordable for them, and if not, what strategies are used to make them affordable? Indeed, they pursue density and the more interviews, observations and documents obtained, then the more evidence will accumulate, the more variations will be

found, and the greater the density will be achieved. Thus there will be wider applicability of the theory, because more and different sets of conditions affecting phenomena are uncovered (Strauss and Corbin, 1990:190-91). In this research, in order to ensure density and wider applicability, the number of interviews and observations were loosely set at the beginning of research and adjusted during fieldwork to ensure saturation of concepts.

Proven theoretical relevance identified concepts that are significant enough to be considered categories. The concepts of capital accumulation by developers, security of income and shelter for plot-holders, and increase in housing stock for the renters are significant in this research as categories. They are deemed significant because: (1) they are repeatedly present or notably absent when comparing incident after incident, for instance as outcomes of the process of developer financed rental housing; and, (2) through coding procedures they earn the status of categories. The aim of theoretical sampling is to sample events, incidents and so forth that are indicative of categories, their properties and dimensions, so that they can be developed and conceptually related (Strauss and Corbin, 1990:177). These outcomes tie in the different interrelated conceptual categories into the core category.

Theoretical coding is linked closely to the theoretical sampling and encompasses the very basis of grounded theory. The essential relationship between data and theory is a conceptual code. The code conceptualises the underlying patterns of the data. Thus, in generating a theory by developing the hypothetical relationships between conceptual codes (categories and their properties) which have been generated from the data as indicators, we discover a grounded theory (Glaser, 1978:55). There are three types of theoretical coding, viz., open coding, axial coding and selective coding.

### **3.8.3 Open Coding**

Open coding is closely linked to open sampling and provides the foundation of the research process. According to Glaser (1978), the goal of the analyst is to generate an emergent set of categories and their properties which fit, work and are relevant for integrating theory. To achieve this goal the analyst begins with open coding (Glaser, 1978:56). Attention is fixed on a category and the properties that emerged continually coded and analysed: these are the initial basic steps. Ultimately, one constantly compares and continually categorises. The qualitative data relating to each causal condition for the process is broken down in terms of open coding and restructured initially in a list and later

refined in a fishbone diagram to determine the categories, and show cause-effect relationships.

The categories of plot-holders' decision to participate in the process; 'affordability' for the renters; and the developers' willingness to invest, are identified from research findings. A 'category' is a classification of concepts. This classification is discovered when concepts are compared one against the other and appear to pertain to a similar phenomenon (Strauss and Corbin, 1990:61), in this research, the process of private developer financed rental housing development. Furthermore, conceptual labels are placed on discrete happenings, events, and other instances of phenomena. For instance, in addition to causal conditions intervening conditions such as the overall socio-economic environment that lead to these happenings are also identified. In the case of Malé, these are identified as the influx of migrants, the shortage of housing land, inadequate legislation, increased capacity of the construction sector, failure of public housing, and lack of institutional finance. Indeed, these main concepts are made up of properties and characteristics that are indicated by the overall core category. Finally these concepts are given dimensions through the location of properties along a "continuum" (Corbin and Strauss, 1990); in this research a fish-bone diagram of cause-effect relationships is used. Overall, the research is visually represented through cause-effect diagrams each of which illustrates the relationships between the main concepts of plot-holders' decision to participate in the process; renters' affordability and the decision of developers to invest in rental housing. Indeed, these diagrams illustrate a visual sorting process that helps identify how the categories are related to one another. This diagram helped identify causes/reasons and effects of each of these categories, how they interrelate, and lead to the outcomes of the phenomena of developer financed rental housing process in Malé.

### **3.8.4 Axial Coding**

Axial coding involves bringing the analysis together, creating a whole. It indicates the overall system of which the categories created through open coding are part. In grounded theory research, axial coding is the process of relating codes (categories and properties) to each other, via a combination of inductive and deductive thinking. To simplify this process, rather than looking for any and all kind of relations, grounded theorists emphasize causal relationships, and fit attributes into a basic frame of generic relationships, (Strauss and Corbin, 1990:96-97). Table 3.3 shows the basic frame of generic relationships for this research, derived from the fieldwork findings presented in the previous chapter.

**Table 3.3: The Basic Frame of Generic Relationships**

Element	Explanation	Description of Research Findings
Phenomenon	This is what in schema theory might be called the name of the schema or frame. It is the concept that holds the bits together. In grounded theory it is sometimes the outcome of interest, or it can be the subject.	The process of private rental housing production through developer financed multi-storey construction
Causal conditions	These are the events or variables that lead to the occurrence or development of the phenomenon. It is a set of causes and their properties.	<ul style="list-style-type: none"> <li>Plot-holders' decision to participate in the process, caused by/result of: <ul style="list-style-type: none"> <li>- Immediate and future shelter needs</li> <li>- Unavailability of institutional housing finance</li> <li>- Source of future income</li> <li>- Income and/or savings too low for investment in housing</li> <li>- Lack of funds for self-financed construction</li> <li>- Absence of a financial burden</li> </ul> </li> </ul>
		<ul style="list-style-type: none"> <li>'Affordability' of renters, caused by/result of: <ul style="list-style-type: none"> <li>- Reduction on luxuries and non-essentials</li> <li>- Pooling of funds among members of tenant households</li> <li>- Use of income from outside sources, esp. family members</li> <li>- Living in overcrowded conditions to spread the housing cost over many members</li> </ul> </li> </ul>
		<ul style="list-style-type: none"> <li>Developers' willingness to invest, caused by/ result of: <ul style="list-style-type: none"> <li>- Large unmet demand for rental housing</li> <li>- Low risks of housing investment</li> <li>- Developers' access to bank loans</li> <li>- Absence of rent controls</li> <li>- Surplus funds of developers</li> <li>- Good return on investment</li> <li>- An element of benevolence and charity</li> </ul> </li> </ul>
Context	Hard to distinguish from the causal conditions. It is the specific locations (values) of background variables. A set of conditions influencing the action/strategy. There is a quaint distinction between active variables (causes) and background variables (context). It has more to do with what the researcher finds interesting (causes) and less interesting (context) than with distinctions out in nature.	<ul style="list-style-type: none"> <li>Contextual background of Malé, characterized by: <ul style="list-style-type: none"> <li>- Absolute limits of land due to island nature (192 ha)</li> <li>- Huge disparities between Malé and other islands in social &amp; economic services</li> <li>- Low income of Malé residents who 'hold' housing land compared to in-migrants</li> <li>- Growing aspirations of population to smaller household sizes resulting in demand for additional housing</li> <li>- State ownership of land with no legal opportunity to transfer ownership of land</li> <li>- Lack of a cohesive housing policy</li> <li>- No forms of institutional finance for housing development (until mid-2004)</li> </ul> </li> </ul>

Intervening conditions	Similar to context. If we like, we can identify context with moderating variables and intervening conditions with mediating variables. But it is not clear that grounded theorists clearly distinguish between these two.	<ul style="list-style-type: none"> <li>Intervening conditions include socio-economic background variables, characterised by: <ul style="list-style-type: none"> <li>Inadequate legislation to enable transfer of ownership of land</li> <li>Shortage of land to construct incremental low-cost housing</li> <li>Increasing demand for housing from continued influx of in-migrants</li> <li>Lack of household finance to construct housing</li> <li>Failure of public housing to meet demand</li> <li>Increased capacity of construction sector to invest in property development</li> </ul> </li> </ul>
Action / interaction strategies	The purposeful, goal-oriented activities that agents perform in response to the phenomenon and intervening conditions.	<ul style="list-style-type: none"> <li>Lease of land by the plot-holder to the developer (for &lt;10 years, as regulated by Government)</li> <li>Plot-holder provided with alternative accommodation by the developer during construction</li> <li>Construction of multi-storey building by developer, using own funds, supplemented, if and when necessary, with bank loans at commercial rates</li> <li>Upon completion of construction, one or more floors made available for plot-holder</li> <li>Rest of the floors leased to generate income to recover development costs, and accrue profit</li> <li>At the end of lease period, the whole building reverted back to plot-holder</li> </ul>
Consequences	These are the results of the action strategies, intended and unintentional.	<p>The phenomena which leads to the strategies identified above results in:</p> <ul style="list-style-type: none"> <li>Security of income and shelter for the plot-holders</li> <li>Increase in housing stock of Malé</li> <li>Accumulation of capital for the developers</li> </ul>

Source: Strauss and Corbin (1990), completed with research findings

In more specific terms, the *phenomenon* is the process of private developer financed rental housing construction in Malé, for which the *causal conditions* are the decision of plot-holders to participate in the process; the affordability of rental housing for the renters; and, the willingness of developers to invest housing construction for private rental. The *context* constitutes the set of background variables and circumstances in Malé that have contributed to the process. The *intervening conditions* are specific conditions or mediating variables that have provided an environment conducive for the causal conditions to interplay in the explication of the process. These translate into the *actions/interactions* among the main three groups enabling the functioning of the process. Finally, the *consequences* are the results, effects or outcomes of the process. In this research, they are: security of income



and shelter for the plot-holders; increase in the housing stock of Malé; and, accumulation of capital for the developers.

Glaser (1992) considers that axial coding undermines and confuses the very method that he (Strauss) is trying to build (Glaser, 1992:61). According to him, this process forces the data and negates theoretical coding. He stresses that the grounded theorist should code categories and properties, and should allow theoretical codes to emerge where they will. On the other hand, Strauss and Corbin (1990) consider that axial coding allows a more focused means of discovering and relating categories. This research uses axial coding as a guide into which the specific categories to the research emerge.

### **3.8.5 Selective Coding**

Selective coding is the process by which all categories are unified around a core category (Corbin and Strauss, 1990:15). The core category in this study is the process of private developer financed rental housing construction in Malé. The situation in Malé incorporates other categories and stand in relationship to the core category as conditions, action/interaction strategies, or consequences. The selection of data and the creation of other categories have been processed with the core category in mind. The core category represents the central phenomenon of the study. It is identified by asking questions such as; what is the main analytical idea presented in this research? What does all the action/interaction seem to be about? The answers to which are: why prevailing circumstances and conditions in Malé contribute to the interaction of plot-holders and developers to engage in the process; how changes in circumstances are threatening the viability of the process; and, how the Government can intervene to ensure sustainability of the process.

These areas are identified and unified through axial coding. During axial coding, one begins to notice certain patterns, and a certain amount of integration naturally occurs. Indeed, a network of conceptual relationships already exists. Of course, the network may be unclear but it is refined during selective coding. It is very important to identify these patterns and to group the data accordingly, because this is what gives the theory specificity (Strauss and Corbin, 1990). To clarify connections in the network, grounded theory uses a combination of inductive and deductive thinking in which we move between asking questions, generating hypotheses, and making comparisons (ibid, p131). Selective coding integrates the research, it puts the story straight, provides analysis, identifies the core

category and illustrates how major categories relate, both to it and to each other. This can be further developed through understanding *process*.

Process is also to be built into the theory. Process analysis can mean breaking a phenomenon down into stages, phases, or steps. Process may also denote purposeful action/interaction that is not necessarily progressive, but changes in response to prevailing conditions (Corbin and Strauss, 1990:10). Consequently, when the process of developer financed housing construction is analysed, processes and action/interaction are identified through different groups. In addition, the changes and compromises made by these groups and sectors are interpreted in relation to what the process has brought and is bringing about. In this research, these are the outcomes of the process, viz., the accumulation of capital for the developers, the security of income and shelter for the plot-holders, and the increase in housing stock for the renters.

### **3.9 Processing, Analysis and Presentation of Data**

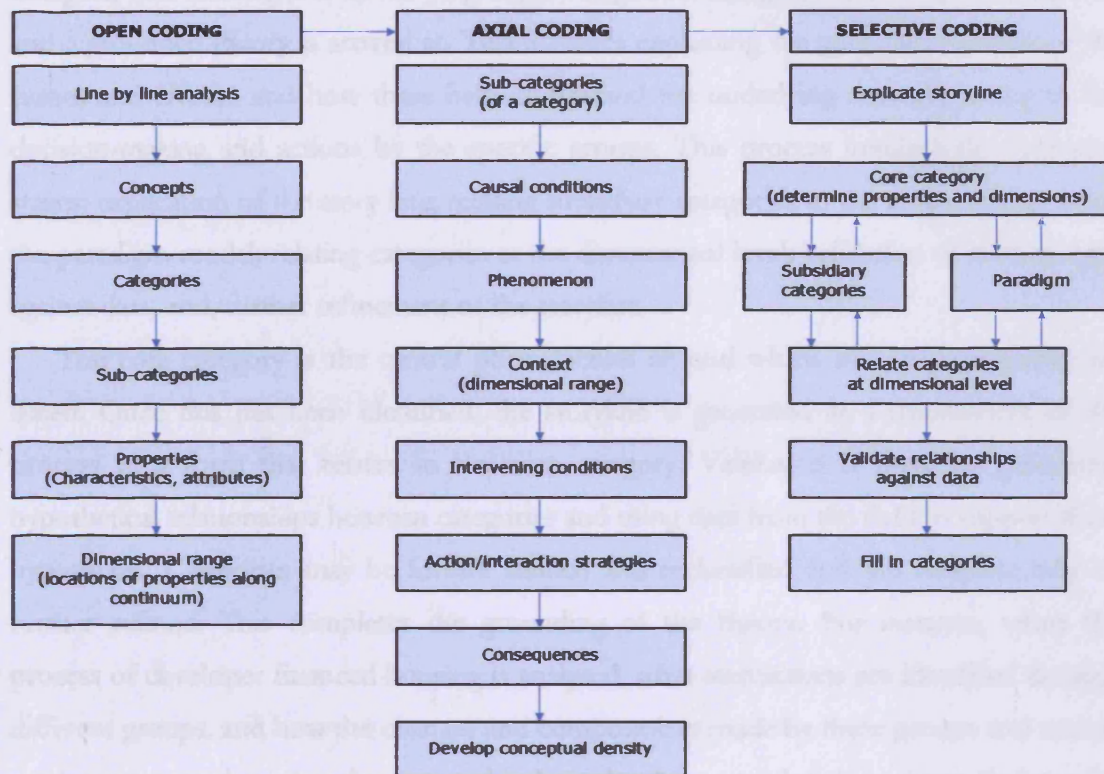
Analysing data by the grounded theory method was an intricate process of reducing raw data into concepts that were designated to stand for categories. The categories were then developed and integrated into a theory. This process was achieved by coding data, writing memos, and diagramming.

In grounded theory methodology, data is collected in the same ways, using the same techniques as in other research methodologies. Data may be qualitative or quantitative or combinations of both. The analysis of data collected in research is often referred to as 'coding'. Data is coded differently depending on the purpose of the data and the stage of the project. Three stages of data analysis are involved in grounded theory. These are open coding, axial coding and selective coding.

Open coding is the process of selecting and naming categories from the analysis of the data. It is the initial stage in data acquisition and relates to describing overall features of the phenomenon under study. Variables involved in the phenomenon are identified, labelled, categorised and related together in an outline form. The properties of a category are described or dimensionalised at this stage. This involves placing or locating the property along a continuum within a range of possible values. In this research the core category is the process of private developer financed rental housing construction in Malé as the central phenomenon of the study. It is examined by asking how the prevailing circumstances and conditions in Malé contribute to the interaction of plot-holders and developers to engage in this process; how changes in circumstances are threatening the

viability of the process; and, how the Government can intervene to ensure sustainability of the process. Figure 3.1 below shows a diagrammatic representation of the grounded theory method.

**Figure 3.1: Diagrammatic Representation of GT Method**



Source: Adapted from Strauss and Corbin (1990)

Axial coding is the next stage after open coding. In axial coding, data are put together in new ways. This is achieved by utilising a 'coding paradigm', i.e., a system of coding that seeks to identify causal relationships between categories. The aim of the coding paradigm is to make explicit connections between categories and sub-categories. This process is often referred to as the 'paradigm model' and involves explaining and understanding relationships between categories in order to understand the phenomenon to which they relate. Identifying primary and secondary causes and effects of the process of developer financed housing development underline this stage in this research.

The situation in Malé incorporates other categories that stand in relationship to the core category as causal and intervening conditions, action/interaction strategies, or consequences. The causal conditions are: the plot-holders' decision to participate in the process; the housing 'affordability' of renters; and, the developers' willingness to invest in rental housing. The intervening conditions, which relate to the socio-economic background variables, impinge on the causal conditions. The consequences of these lead to: security of

income and shelter for the plot-holders; increase in housing stock of Malé; and, accumulation of capital for the developers.

Selective coding involves the process of selecting and identifying the core category and systematically relating it to other categories. It involves validating those relationships, filling in, and refining and developing those categories. Categories are integrated together and a grounded theory is arrived at. This involves explaining the inter-relationships of the causes and effects, and how these help understand the underlying reasons leading to the decision-making and actions by the specific groups. This process involves the following stages: explication of the story line; relating subsidiary categories to the core category using the paradigm model; relating categories at the dimensional level; validation of relationships against data; and, further refinement of the storyline.

The core category is the central phenomenon around which all other categories are based. Once this has been identified, the storyline is generated as a restatement of the process in a form that relates to the core category. Validation is done by generating hypothetical relationships between categories and using data from the field to support these hypotheses. Categories may be further refined and reclassified and the storyline may be further refined. This completes the grounding of the theory. For instance, when the process of developer financed housing is analysed, what interactions are identified through different groups, and how the changes and compromises made by these groups and sectors can be interpreted as what the process has brought about or is bringing about. Perhaps the overriding question is: what inferences can be made from the explanation of these phenomena with regard to the existing studies on housing finance that makes this research an original contribution to knowledge?

The expenditure data collected from the renters for the four months in question were analysed statistically using SPSS and some of the statistical results presented using the software. For clarity of presentation, the tables, graphs and charts of statistical data are produced using Microsoft® Excel. The amount of qualitative data generated did not warrant using a specialised software package, and therefore the analyses of these data were done manually and presented using Microsoft® Word tabulations.

For analysing the causes and effects (primary and secondary) involved in the process, Microsoft® Visio was used to generate a fishbone diagram showing the principal and subsidiary causes and effects in graphical form. A fishbone diagram was used to analyse and present the findings of fieldwork data, and to extract concepts akin to grounded theory generation. The whole diagram is explained and annotated at the beginning of the

following chapter, while parts of the diagram are explained in detail in the relevant sections of that chapter.

Most of the secondary data were already available processed and in tabular formats. However, some aggregation or disaggregation, regrouping and modifications to some of them were necessary to increase accuracy and allow comparison to research data, and to support them, whenever necessary. Sources of the data are duly acknowledged and any aggregation or regrouping of data is noted, as and when required.

### **3.10 Limitations**

This study is limited to the exploration of household choice and developer motivation in housing finance and is neither intended nor sought to develop any model of housing affordability or a housing finance model appropriate to the situation in Malé. Nevertheless, it is intended to provide some insights into the process and thinking behind the activities of both developers and landholders and through those explain housing investment decisions in a climate of limited investment opportunities, a situation of absolute scarcity of land, and a context of low institutional support.

### **3.11 Confidentiality**

The informed consent of all people was verbally obtained prior to the commencement of the study, with an explanation of the purpose of the research, and how data will be used to preserve confidentiality. Written requests were sent out to all formal financial institutions explaining the scope and reasons of the study together with evidence of authenticity and support from the University. All data in this research have been treated in a way that preserves the confidentiality and anonymity of the respondent plot-holders, rental households, developers and public officials who provided useful data, opinions, views and comments to this study, for which the author is extremely grateful.



# CHAPTER 4: FINDINGS OF RESEARCH FIELDWORK IN MALÉ

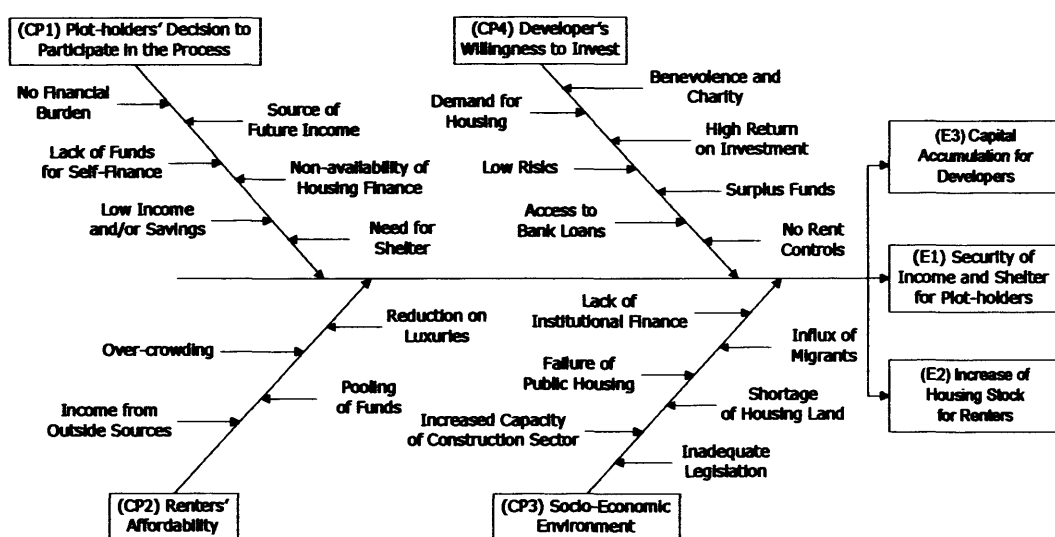
## 4.1 Introduction

As explained in the previous chapter, the research fieldwork was carried out between October 2002 and February 2003 in Malé, Maldives. Primary data was collected from 3 main sources: plot-holders, renters and developers. Secondary data collected include: housing construction data from MHUDB, development indicators, including government revenue and expenditure from MPND, legal/regulatory framework from MHUDB, and availability of public finance from banks.

## 4.2 Cause-Effect Relationships

The fishbone diagram in Figure 4.1 depicts the cause-effect relationships derived from the fieldwork research in Malé. This diagram shows primary and secondary causes and effects. The primary causes are effects of secondary causes or results from them.

**Figure 4.1: Cause-Effect Relationships (Fishbone Diagram)**



Source: Research fieldwork data

For example, availability of surplus funds and a good return on investment causes developers to invest in the process, which in turn is a primary cause for the primary effect of security of income and shelter, increased the housing stock and the accumulation of

capital by the developers. Similarly, the need for shelter and the incidence of low-income results in the plot-holders' decision to participate in the process which in turn becomes a primary cause for the overall effect of providing security of income and shelter for the plot-holders, increasing the housing stock and capital accumulation by the developers. These primary effects are described below.

### *E\_1: Security of Income and Shelter for Plot-holders*

One of the remarkable outcomes of the developer financed housing production process is that at the end of the lease period, plot-holders are able to own a multi-storey building which secures their immediate and medium term shelter needs. Whatever floor space that is surplus to their immediate housing needs, is rented out and become a source of income. In fact, for some households, rent returns become their primary source of income. What is even more intriguing is that this is achieved without spending anything. In fact, developers make monetary contributions for the displaced families to find accommodation during the construction process, and are liable to pay financial penalties if the construction process gets delayed beyond an agreed schedule.

In a typical case of a 10-storey building (floors 0-9), the lease period is 9 years 11 months and 28 days, and the developer is required to complete the construction within 24 months. The developer retains Floors 0 to 3, expected to be completed by the end of 12 months, to recover costs of construction. Each of the remaining 6 floors is expected to be completed in two month intervals. Thus the schedule for handing over the six floors from fourth to ninth to the plot-holder is as shown in Table 4.1 (For details of the clauses included in this typical schedule see Appendix I – Typical Lease Agreement Clauses.)

**Table 4.1: Typical Hand Over Schedule**

Floor	Before end of month
4	14
5	16
6	18
7	20
8	22
9	24

Source: Research fieldwork data

### *E\_2: Increase of Housing Stock*

A second primary effect of the process is that the housing stock in Malé is increased. As shown in chapter one and will be shown in subsequent sections in this chapter, most housing development in Malé is privately financed. Although, developer financed housing production has only been prevalent in the last 10 years, this process has contributed towards increasing housing stock especially in locations where rental values are high. Developers have expressed uncertainty on their ability to generate substantial profits since the development of Hulhumalé. As a result, the eagerness of some developers to embark on the process has diminished considerably since 2001. Despite this eroding of confidence, this process can still be attributed to contribute to the increase in housing stock in Malé significantly. Figures from MHUDB (2002) housing survey indicate that 11 out of 250 households (4.4%) were living in housing developed by private developers. In fact, evidence confirms that apart from a small blip during 2001-02, demand for housing in Malé has experienced a healthy growth.

### *E\_3: Accumulation of Capital for the Developers*

A third primary effect of the process of developer financed rental housing production has been the accumulation of capital for the developers. If the developers were unable to generate sufficient rental income, the viability of the process would be undermined, and they would be reluctant to embark on additional projects. Developers have claimed to have generated 200 to 300 percent profit from some of the projects in the mid 1990s. However, they admit that oversupply has reduced the rental values of residential flats. Also, they attribute a slow down of take up of rental housing caused by the reduction in migration to Malé from other atolls. Nevertheless, real estate developers are still able to generate substantial profits that they are reinvesting in additional residential projects, in the belief that the demand for housing is unlikely to diminish drastically in the coming years.

## **4.3 Analysis of Causes and Effects**

In the process under investigation, the plot-holders' decision to participate in constructing a building on their allocated land with investment from private developers, to be rented out on the latter's terms, leads to the primary effects of: (a) security of income and shelter for the plot-holders in the long term, (b) increase in total housing stock, and (c) accumulation

of capital by the developers. The following analysis will attempt at refining each of the causes and effects to clarify the assumed meaning of these concepts in relation to the study.

#### **4.3.1 Primary Cause 1: CP\_1 - Plot-holders' Decision to Participate in the Process**

The nature of land holding in Malé is that housing land is allocated to residents and long-term migrants of Malé in perpetuity, based primarily on need determined by the Government, with rights of inheritance. The responsibility for building on the land is left to the individuals. They can, however, lease the land for housing and other uses, provided the lease period is not more than 10 years. These individuals do not own the land they are allocated. Thus, they are not landowners; the ownership of land being vested in the Government. Therefore, they are referred in this research as 'plot-holders'. These comprise a diverse group. Some of them, who have land on prime locations such as main roads and proximity to the central business zone, have been able to capitalise on the high rental and land values for commercial use. In fact, Malé Municipality does not restrict plot-owners from using the land for non-residential uses provided the family and other dependents of the plot-holder have suitable abode at the plot or elsewhere.

Others, who have land holdings on minor roads, or sometimes at the end of an alleyway from subdivision of land, are still able to benefit from high rents for housing. The current practice of subdivision of land, as opposed to joint development of the land, has rendered many plots too small to develop into multi-storey housing. These plot-holders are unable to find developers who would develop their land and provide them with the associated security of shelter and income. For many plot-holders, dependence on rental income forces them to live in cramped unhygienic high occupancy conditions as salaries and wages have not kept in pace with the costs of modern urban services in Malé. Nevertheless, plot-holders are in a better economic standing than migrant islanders because of the very fact that they do not have to spend anything on rent. Also, for those who have been renting out portions of their land for housing or non-residential uses, such as shops and small workshops, rental returns have become their principal source of income, at least in terms of magnitude.

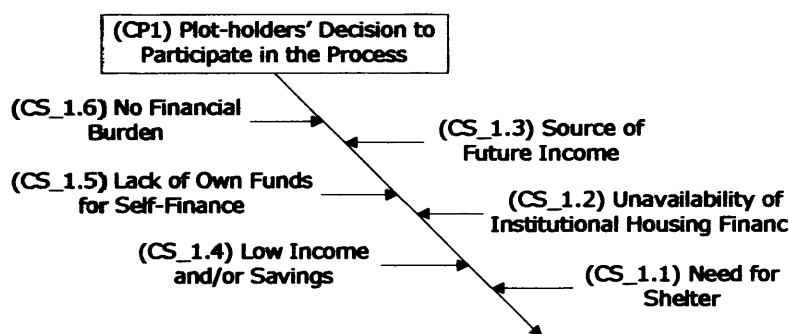
Having lived in Malé for much longer than the in-migrant islanders, most plot-holder families also enjoy better social standing in the community through long term public service or private business ventures. Having said that, several of the in-migrants who migrated from Addu Atoll, the southern-most atoll, have been extremely successful in operating retail and wholesale businesses in Malé, and have expanded their enterprise into

tourism and travel trades. The most successful have also purchased land from private owners and become landlords and benefited from the inflation of land values.

All of the 30 plot-holders interviewed in the study, are Malé residents as that has been a precondition for Government allocation of housing plots. All of them were also born in Malé. However, not all their parents were born in Malé. Nineteen plot-holder families (63.3%) had already been settled in Malé prior to 1980, while ten others (33.3%) received housing land from the newly reclaimed area during the late 1980s. The remaining one plot-holder had purchased the land from a private landowner who sold one of the two plots inherited from either of her parents, to finance the construction of her house. Eleven out of the nineteen plot-holders who settled prior to 1980 (57.9%) were parts of larger subdivided plots. There were a total of 243 people living in the 30 plot-holder households out of which 86 (35.4%) were under 18. On average there were 8.1 people per household, with a median of 9, one more than the median household size in Malé.

Secondary causes leading to the plot-holders' decision are: the need for shelter; the unavailability of institutional housing finance; as a future source of household income; low incomes and subsequent savings; lack of finance for the construction of housing; and, freedom from financial burden. These were the main reasons given by plot-holders when asked why they participated in the process. Figure 4.2 below shows graphically these causes/reasons, each of which is described below.

**Figure 4.2: Secondary Causes/Reasons for Primary Cause 1**



Source: Research fieldwork data

### *CS\_1.1: Need for Shelter*

The possession of a land plot does not automatically guarantee the provision of shelter. Shelter provision is left for families with no State involvement or support. As a result, the housing construction process has been incremental and essentially single-storey using informal means and family labour. Some of the plot-holders live in multi-family



households, often with a family of four or more to a room, sharing toilets and kitchen facilities with other families. As the plot-holder families grow, the need for shelter increases even more. Therefore, one of the reasons why plot-holders participate in the process of developer financed construction, is the need for providing shelter to the immediate family and dependants.

### *CS\_1.2: Unavailability of Institutional Housing Finance*

Unavailability of institutional finance from public or private sources for housing construction is identified by plot-holders as another cause/reason for participating in the process. Bank loans are generally unavailable for plot-holders because of the requirement of collateral equivalent to twice the value of the loan. Additionally, high interest rates and short repayment periods render them too risky for many of the plot-holders. Also, they feel that banks, by refusing to recognise the development potential of rental housing, tend to treat housing loans as commercial loans. Plot-holders intimate that Government loans, at lower interest rates (typically 6% per annum), are used by some plot-holders for construction of housing, but eligibility to these is neither clear nor publicised. In actual fact, some plot-holder families do not see loans as: 'legitimate' because interest is compared to usury; 'desirable' because being in debt is derogatory; or, 'advisable' because of risks and uncertainty of repayment. Thus plot-holders do not seem to have a suitable source of institutional finance for the construction of housing.

Institutional housing finance is not generally available to the public. Whatever credit loaned by the commercial banks are of high interest (typically 12-14% p.a.) with short repayment periods (3-5 years), and require collateral valued at the amount of the loan. Bank of Maldives, one of five commercial banks in Malé, indicate that they had a total loan portfolio of Rf 1.1 billion (US\$ 85,937,500) in 2001, of which 7.73% comprising Rf 85 million (US\$ 6,640,625) was for construction comprising almost entirely of residential housing, including developer-financed construction. However, they insist that this was strictly limited to those with adequate collateral and amounted to no more than 50% of the cost of construction. This total also included loans issued to bank employees for housing construction. None of the other banks indicate that they offered a housing loan product.

### *CS\_1.3: Source of Future Income*

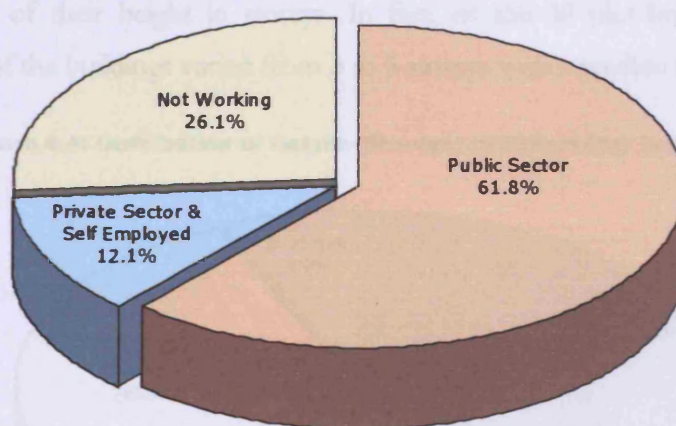
All plot-holders in Malé identify the participation in the process of developer financed construction of housing as an avenue for improving their sources of future income.

Burdened with low income from public sector employment, and with increasing living costs brought about by a consumer oriented society, finding alternate sources of income are identified to be important, especially for the future. The floor space that is created and passed on to the plot-holder at the end of the lease period (usually 10 years), if excess to shelter requirements, provide long-term rental income for the plot-holder families. Although only 9 plot-holders are aware of the new Land Act (Law 1/2002) all of them express hope that, when legislation permits, if they had surplus floor space they would be sold to generate immediate income. However, all plot-holders are concerned about the fall in rental values and also fear that the Government may impose some form of taxation from rental returns, eroding their revenue potential.

#### *CS\_1.4: Low Income/Savings*

At least one member from each of the 30 plot-holder families is employed in the public sector. In fact, 97 persons, or 61.8% of all persons over 18 are public sector employees. Another 19 (12.1% of over 18s) are either self-employed or working in the private sector. The remaining 41 (26.1% of over 18s) are unemployed or not working. Of this group, 29 (70.7%) are females. Figure 4.3 shows the employment distribution among these households.

**Figure 4.3: Employment Distribution among Plot-holder Households**



Source: Research fieldwork data

Those employed in the public sector earn relatively low wages and allowances, which mean that even with pooling of funds through multi-family living, household expenses exceed total income. The causes for this are stated to be the high costs of utilities, such as water, electricity and cooking gas, as well as the high costs of telephone services. Medical

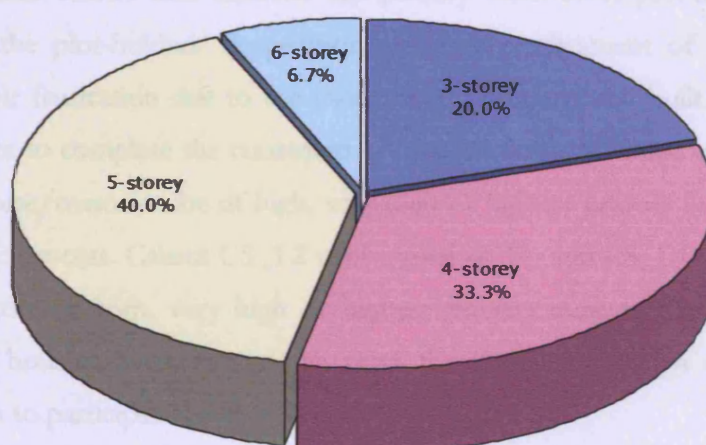


services are also identified to be costly, especially when some higher order services need travel abroad for treatment. Even though they have no rent to pay, and usually get some income from lease of land or property, all the plot-holders indicated that they are unable to accumulate enough savings that can be invested in housing. Part of the reasons for erosion of savings could be because the avenues for investing in shares and bonds have only just begun and interest returns from savings accounts are nominal considering inflation and fluctuations to the exchange rates. As a result all plot-holders identify low income and small savings to be a reason for participating in the process of developer financed construction.

### *CS\_1.5: Lack of Own Funds for Self-Financed Construction*

For some time, plot-holders in Malé have relied on rental income from leasing part of the housing land for other uses such as shops, workshops, garages and warehousing to supplement their income and whatever surplus after daily consumption, used for housing construction or upgrading. The potential for rental income also depends on location, with properties fronting onto main roads fetching higher rates. As land plots get subdivided and decreased in area, the potential for leasing part of the land for other uses diminished. As a result, they lacked savings for self-built or self-financed construction of housing. Some families with larger plots and fewer members have been quite successful in using such funds for the construction of multi-storey housing. Figure 4.4 below shows the distribution of the developer constructed buildings, belonging to the plot-holders interviewed in this study, in terms of their height in storeys. In fact, of the 30 plot-holder buildings, the average height of the buildings varied from 3 to 6 storeys with a median height of 4 storeys.

**Figure 4.4: Distribution of Height (Storeys) of Plot-holder Buildings**



Source: Research fieldwork data

### *CS\_1.6: No Financial Burden*

A final cause/reason for participating in the process is because the plot-holders are not required to put any money for the construction. Thus they do not have any financial burden during or after the construction period. Furthermore, during the construction process the developers provide the displaced plot-holders with alternative accommodation or a fixed amount of money to find the same. In effect, at the end of the lease period, currently fixed at less than 10 years, the plot-holders get a complete building essentially free-of-charge, and definitely without any financial burden.

These reason/causes are identified during the first stage of the interviews of plot-holders. The plot-holders are then asked to identify which of them they accorded the highest priority, very high priority, high priority, low priority, very low priority and the least priority. Table 4.2 below, shows the distribution of the priorities among these causes/reasons.

**Table 4.2: Priorities for Plot-holders' Decision to Participate in the Process**

Code	Cause/Reason	Priority Levels (No. of Plot-holders)					
		Highest	V High	High	Low	V Low	Lowest
CS_1.1	Need for Shelter	5	6	7	5	4	3
CS_1.2	Unavailability of Housing Finance	7	8	4	5	2	4
CS_1.3	Source of Future Income	2	4	7	3	7	7
CS_1.4	Low Household Income/Savings	6	1	4	5	9	5
CS_1.5	Lack of Funds for Self-Finance	10	7	5	2	2	4
CS_1.6	No Financial Burden	0	4	3	10	6	7

Source: Research fieldwork data

An analysis of the accorded priorities indicate that there is some general consensus on which is the most important cause or reason for the plot-holders to participate in the process. The cause/reason that received top priority from most plot-holders is CS\_1.5 which indicate the plot-holders' desperation on their predicament of lack of personal finance, and their frustration due to the incremental nature of self-built housing and the long time it takes to complete the construction process. In fact, 22 out of 30 plot-holders accorded this cause/reason to be of high, very high or highest priority in their decision to participate in the process. Causes CS\_1.2 with a total of 19, and CS\_1.1 with a total of 18 plot-holders according high, very high or highest priority indicate that unavailability of institutionalised housing finance, and the need for shelter rank high among the plot-holders' decision to participate in the process.

No plot-holder indicates that having no financial burden was a priority cause for participation in the process. In fact, 23 of the 30 plot-holders give this cause/reason low,



very low or lowest priority. Causes CS\_1.4 with a total of 19, and CS\_1.3 with a total of 17 plot-holders according low, very low or lowest priority rank low in the plot-holders causes/reasons to participate in the process. This may indicate the plot-holders' unwillingness to admit to low income and/or savings, and also a general lack of confidence that the housing created could be a source of income in the future. At the time of the survey, two of the plot-holders were in their ninth year, and five others were in their eighth year of the lease to the developer. Since the process has started in the mid-1990s, there were no plot-holders who had completed the 10-year process to include in the survey and to find out if they felt any different to the others.

These findings lead to the conclusion that the plot-holders participate in the process mainly because of their lack of household finance to undertake housing construction, their inability to obtain institutional finance and because of the need for shelter for their families and dependants. For most plot-holders having low incomes and subsequent savings, no financial burden, and the consideration that the housing created will become a source of future income, are not important causes/reasons for participating in the process.

#### **4.3.2 Primary Cause 2: CP2 - Renters' Affordability**

Rental values in Malé have been escalating over the last two decades, because of the pressure on land from population growth largely due to in-migration. Statistics from HIES 2002-03 indicate that over the ten years since the first HIES was conducted in Malé in 1993, the share of food expenditures has gone down from one-third to about one-quarter. At the same time, the share of housing costs which include rents and utilities has gone up from one-sixth to one quarter. Although smaller in terms of total expenditures, equally significant changes took place in expenses for education and health. The largest drop was recorded for expenses on clothing, which declined over this period from about ten percent of the total in 1993 to only about four percent in 2003 (MPND, 2005b).

The renters comprise the second group studied in this research. Apart from two households who were in the plot-owner group, who were renting until their house was being constructed; all other households comprised in-migrants who have been renting in Malé for durations ranging from 2 to 8 years. Out of the 51 households surveyed, one household (2%) said it was very easy to find rental accommodation; four households (8%) found it easy; another four (8%) found it difficult, while 26 (51%) considered it very difficult to find housing for rent. The 16 remaining households (31%) indicated that it was neither easy nor difficult – the middle band of the easy-difficult continuum.

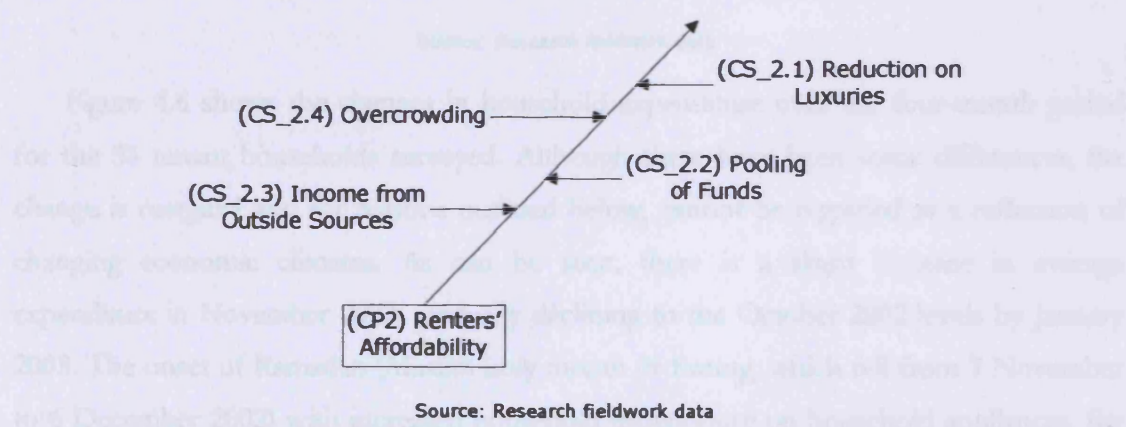


**Table 4.3: Characteristics of Rental Households**

Characteristic	No. of Occupants	No. of Bedrooms	Persons per room	Persons contributing to expenses
Total	431	151	-	95
Mean	8.451	2.961	2.900	1.863
Median	8.0	3.0	2.8	1.0
Mode	5.0	2.0	2.5	1.0
Maximum	22.0	5.0	5.0	7.0
Minimum	1.0	1.0	1.0	0.0

Source: Research fieldwork data

One of the objectives of the study is to determine how and to what extent the rental housing produced by the developers is affordable to the in-migrant renters who make up the majority of the tenants. There are also some expatriate workers, usually professionals such as airline pilots, teachers and nurses, who occupy some of the rental housing. However, none of the 51 rental households surveyed in this research contained non-nationals. There are a total of 431 persons living in the 51 rental households, with a mean occupancy of 8.45 and a median of 8 persons per household. The largest household comprises 22 members while the smallest have just one person. The mean number of rooms in these housing units is 2.96 with a median of 2.8. On average the occupancy levels are 2.9 persons per room, as shown in Table 4.3.

**Figure 4.5: Secondary Causes/Reasons for Primary Cause 2**

Source: Research fieldwork data

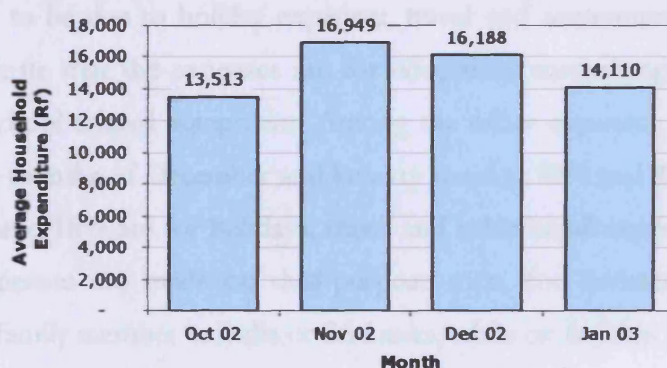
The fieldwork research involves carrying out a household survey to determine total monthly expenditure over the four-month period October 2002 to January 2003. Data are collected from 51 households to determine the affordability of rented housing. Their expenses are disaggregated into rent, food, utilities (water, electricity, telephone, and garbage disposal), medical expenses, and others. The others are specified as falling mainly into two main categories, holiday expenses and education, depending on the size of

expenses. The findings of the survey are used to arrive at Figure 4.5 which is part of the overall diagram on cause-effect relationships in the developer financed housing construction process. It indicates the strategies renters use to make their housing affordable, which are described and explained below.

### *CS\_2.1: Reduction on Luxuries*

One of the strategies used by tenant households to make housing 'affordable' is to cut back on luxuries and non-essentials. The following account based on the findings of the survey show the average household expenditure and the composition of this over the four-month period, to show that households have little or no expenditure on luxuries and non-essentials, or any savings for that matter.

**Figure 4.6: Change in Household Expenditure, Oct 2002 to Jan 2003**



Source: Research fieldwork data

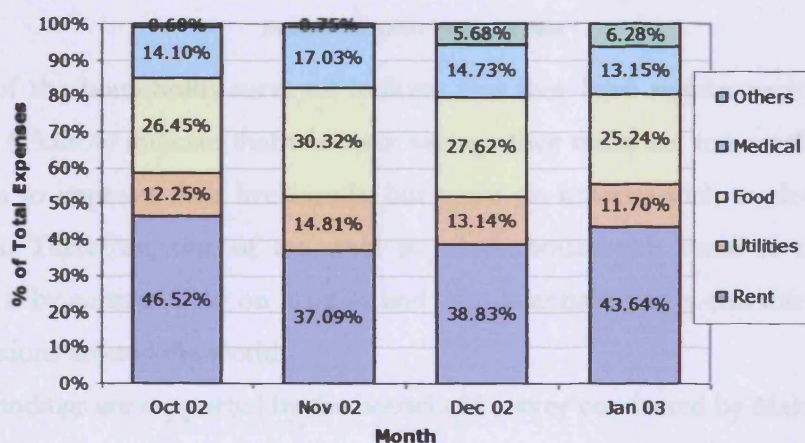
Figure 4.6 shows the changes in household expenditure over the four-month period for the 51 tenant households surveyed. Although there have been some differences, the change is marginal and for reasons outlined below, cannot be regarded as a reflection of changing economic climates. As can be seen, there is a slight increase in average expenditure in November 2002, gradually declining to the October 2002 levels by January 2003. The onset of Ramadan (Muslim holy month of fasting, which fell from 7 November to 6 December 2002) with increased household expenditure on household appliances, for the preparation of varieties of food, and for entertainment and leisure activities during Ramadan accounted for this hike, as can be seen in Figure 4.6 where the totals for November and December showed a 25% and 20% increase, respectively, over October 2002. In addition, during January, increased household expenditure, on books and uniforms for school-aged children, prevented the levels falling to the October 2002 levels. Schools in Maldives started their academic year on 12 January in 2003.



Despite subsidised health services, this analysis reveals that medical expenses constitute a substantial proportion of household expenditure, and households with school-aged children spend a large proportion of their income on school books and uniforms towards the beginning of the academic year. Medical expenses are even more pronounced when patients have to travel abroad, to India or Sri Lanka, and sometimes to Thailand, Malaysia and Singapore, for complications and conditions that cannot be treated or managed nationally.

In the household expenditure analyses carried out over the four months October 2002 to January 2003, on average, medical expenses comprised almost an eighth to more than a sixth of total outlay throughout the period (13.15% to 17.03%). At the same time, although average total expenses for others stayed at below 1% for the months of October and November, for December and January, households on average spent 5.68% and 6.28% of their total monthly income on others, respectively. Six of the households attribute expenses in this category to be due to holiday expenses, travel and accommodation. All the other households indicate that the expenses are for education, comprising purchase of books, uniforms and school related equipment. Among the other expenses, the proportions for education in the months of December and January stand at 79% and 82% respectively. The remaining 21% and 18% are for holidays, travel and other small expenses. Even the travel and holiday expenses are made on dual-purpose trips, for instance to obtain medical treatment for a family member in India or Sri Lanka, while on holiday.

**Figure 4.7: Composition of Monthly Household Expenses, Oct 2002 – Jan 2003**

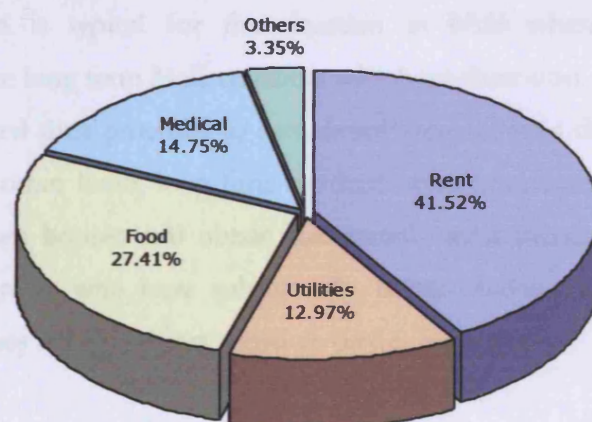


Source: Research fieldwork data

Figure 4.7 above, shows the respective proportions of the household expenses on utilities, food, education, medical services, rent and others over the four month period. While rent may seem to fluctuate from one month to another, these are not absolute

numbers, but relative proportions of total expenses. Therefore, when expenses in other categories go up, the proportion of rent automatically goes down. What is alarming is that on average, households spend between 37.09% and 46.52% of their income on rent, and if utilities are included, housing costs amount to over half the total expenses, at between 51.90% and 58.77%. This is not uncommon, and supported by research that shows that several households in cities such as Tokyo, Mumbai and London spend up to 60% of their income on housing. Figure 4.8 below shows the aggregate expenditure for all households in the survey, for the four month period October 2002 to January 2003. As can be seen, rent constitutes over two-fifths of the total household expenditure. Households, therefore, have to spend two-fifths of their expenditure on housing, by sacrificing on non-essentials and luxuries.

**Figure 4.8: Composition of Household Expenses, Oct 2002 – Jan 2003**



Source: Research fieldwork data

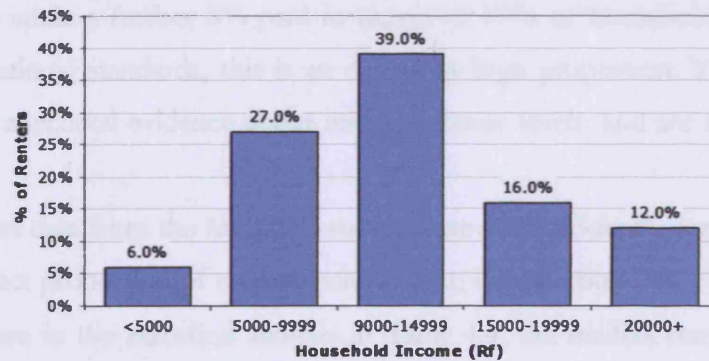
None of the households surveyed indicate that they have regular savings. In fact, 8 households (15.68%) indicate that whatever savings they make are too small to make any contribution to improve their livelihoods, but spent on luxuries such as electronic games and gadgets. Therefore, one of the ways in which households seem to make housing 'affordable' is by cutting down on luxuries and non-essentials, and is characteristic of other similar situations around the world.

These findings are supported by the household survey conducted by Maldives Housing and Urban Development Board (MHUDB) in 2002 as part of a World Bank financed project on capacity building in the housing and urban development sector. The MHUDB survey looked for characteristics of households paying high rents in relation to their incomes. Overall, 45% of the households interviewed were renters; 55% owned their accommodation. The proportion of renters varied with monthly household income.



Renters were to be found predominantly in the middle income groups. Figure 4.9 displays these findings relating the proportions of renters to household income.

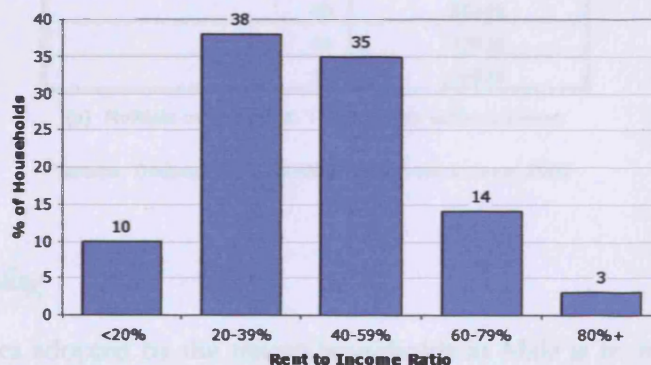
**Figure 4.9: Proportion of Renters by Household Income, 2002**



Source: Prepared from MHUDB(2002), Household Survey Data

This observation is typical for the situation in Malé where the lower income households tend to be long term Malé residents who have their own abode. Subdivision of land may have reduced their potential to earn rental income, even though they have their own abode. On the other hand, long time residents who have access to larger pieces of land, live in their own houses and obtain substantial rental income. The middle group comprise the in-migrants who have substantially better incomes and would be renting accommodation as they have no direct access to owner occupation.

**Figure 4.10: Distribution of Rent-Income Ratio, 2002**



Source: MHUDB (2002b) Table B2.10 Rent by Income, 2002

The survey also found that many renters were concentrated in the middle income groups, almost two-fifths of them in the range Rf 9,000 (US\$ 710) to Rf 15,000 (US\$ 1,180) per month. The converse of this finding was that there was a small group of renters on low incomes who remained unable to afford much more than one-room abodes, and



who were not sufficiently wealthy to afford housing even under a market-driven housing finance system, thus the need for subsidies.

Figure 4.10 shows the distribution of rent to income ratios for the 100 households that paid rent among the respondents of the MHUDB 2002 survey. As can be seen, 14% paid 60-80% as rent while a further 3% paid in excess of 80% of household income as rent. Even by international standards, this is an extremely high proportion. These findings are consistent with anecdotal evidence about rent to income levels, and are supported by this research.

Although the data from the MHUDB survey were not sufficiently precise to be able to calculate the exact proportion of income paid as rent, it was around 40% for most income groups. As shown in the statistical analysis in Table 4.4, the median rent to income ratio was 40%. The minimum was 0.6% while there was one household paying an unlikely high 86.2% of income as rent!

**Table 4.4: Statistical Analysis of Rent-Income Ratio, 2002**

		Rent-Income Ratio
N	Valid	100
	Missing	0
Mean		.40787
Median		.40000
Mode		.400 (a)
Std. Deviation		.17826
Minimum		.006
Maximum		.862
Percentiles	20	.28381
	40	.36142
	60	.43018
	80	.56929

(a) Multiple modes exist. The smallest value is shown

Source: Deduced from MHUDB Household Survey, 2002

### *CS\_2.4: Overcrowding*

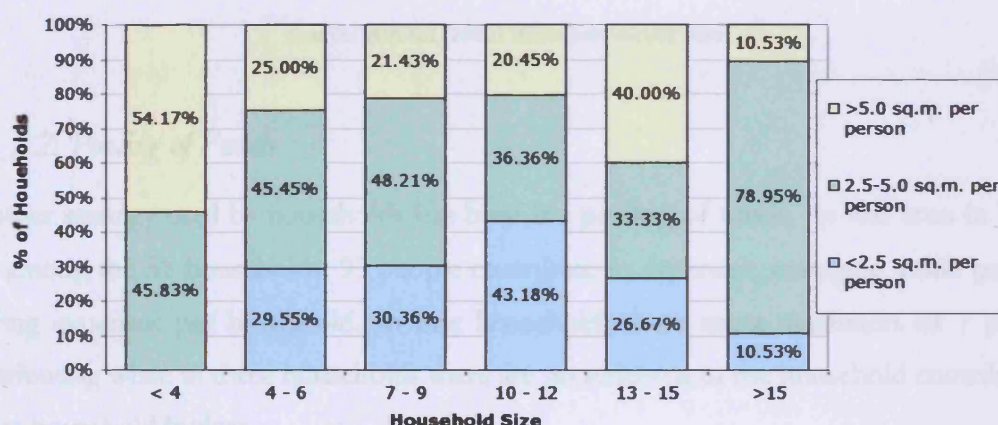
One of the strategies adopted by the tenant households in Malé is to maximise the floor space utilisation, in order to ensure that the rent per head is kept as low as possible. Table 4.3 showed selected household characteristics among the 51 rental households surveyed in this research. Household size averages at 8.451 per dwelling unit, with a maximum of 22 and a minimum of one person per household. The median household size is 8 with a mode of 5. Considering the size of the dwelling units in terms of number of rooms, there are a

total of 151 rooms averaging 2.961 per dwelling unit with a median of 3 and a mode of 2. The maximum is 5 and the minimum is 1.

Analysis of the occupancy levels on all 51 rental households are carried out by determining the number of rooms and the number of occupants. The above figures indicate that on average, there are 2.9 persons per room. The maximum in any household is 5 persons per room and the minimum is 1. The median value is 2.8 while the mode was 2.5. This shows that there is some degree of overcrowding, albeit not severe.

As discussed in Chapter 1, and based on evidence from household surveys (MHUDB, 2002b; MPND, 2005b) the median size of the households in Malé is getting smaller, with nuclear families choosing to live separately. Median household size in Malé has in fact reduced from 14 in the mid-1980s to 8 in the year 2000 (MPND, 2001b). The high occupancy levels witnessed in Malé are thus transitional in nature, are expected to ease with the addition of new housing units especially in Hulhumalé, as such levels are presently tolerated only out of expediency, as a measure of increasing affordability.

**Figure 4.11: Floor Area v Household Size, 2002**



Source: MHUDB (2002) Household survey data

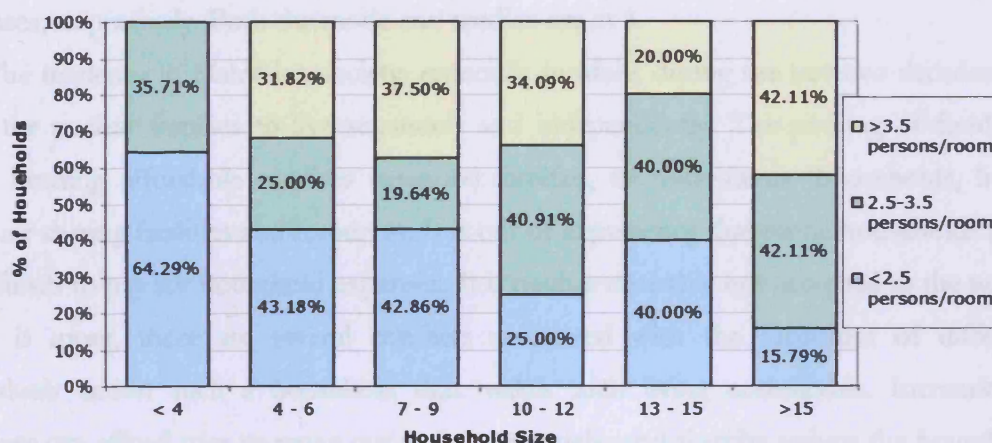
These findings are supported by the results of the MHUDB Housing Survey 2002 which determined the extent of overcrowding, in terms of people per room and in terms of floor space per person. Figure 4.11 above presents the amount of floor area per person in square metres, for different household sizes. On average, close to half of all households (46.34%) had floor areas between 2.5 and 5 sq. m. per person. 27.64% had less than 2.5 sq. m. per person, while the remaining 26.02% had more than 5 sq. m. per person.

Figure 4.12 below shows the number of persons per room for the same categories of household sizes. Overall, two-fifths of all households (40%) had less than 2.5 persons per



room, while the remaining 60% were split equally between 2.5 and 3.5 persons per room and more than 3.5 persons per room. These results indicate that the smallest households (of 3 people or fewer) were the least overcrowded, both in terms of floor area per person and persons per room. There was, though, relatively little difference between medium and large households in terms of the degree of overcrowding experienced.

**Figure 4.12: Persons per Room v Household Size, 2002**



Source: MHUDB (2002) Household survey data

### CS\_2.2: Pooling of Funds

Another strategy used by households has been the pooling of funds. As was seen in Table 4.3, among the 51 households, 95 people contribute to expenses, averaging 1.863 persons sharing expenses per household. In one household, there are a maximum of 7 people contributing while in three households there are no residents in the household contributing to the household budget.

**Table 4.5: Distribution of Household Members Contributing to Expenses**

Contributors	Households	%
0	3	5.9%
1	23	45.1%
2	15	29.4%
3	3	5.9%
4	4	7.8%
5	2	3.9%
6	0	0.0%
7	1	2.0%

Source: Research fieldwork data

Table 4.5 above shows a breakdown of these figures on persons contributing to household expenses. In close to a half of all households (49%), more than one person contributes to household expenses. Almost two-fifths (19.6%) have more than two contributors. In the 23 households, making over 45% of the total, there is only one person contributing to household expenses. Among these 23, only 3 are women, as evidence of the prevailing patriarchal nature of Maldivian society. In 15 households there are 2 people, and in 3, 4 and 2 households there were 3, 4 and 5 people contributing to household expenses, respectively. Both the mode and median are at 1.

The tendency in Maldivian society, especially in Malé, during the last two decades has been for nuclear families to live separately and independently. The pooling of funds to make housing affordable requires extended families, or multi-family households, living together sharing facilities and resources. It is out of expediency that rental households pool their funds to pay for household expenses. It is neither desirable nor accepted as the norm. What is more, there are several conflicts associated with the capacities of different individuals within such a household that makes such living undesirable. Increasingly, whoever can afford tries to move out to live separately, and thereby reduce the household resources considerably. It is very rare, and perhaps exceptional that someone who has moved out would continue to contribute to the original extended household, at least for a long duration. Having said that, the research reveals that all members within any household do not contribute equally, as earning potentials and capacities among members differ considerably.

### *CS\_2.3: Income from Outside Sources*

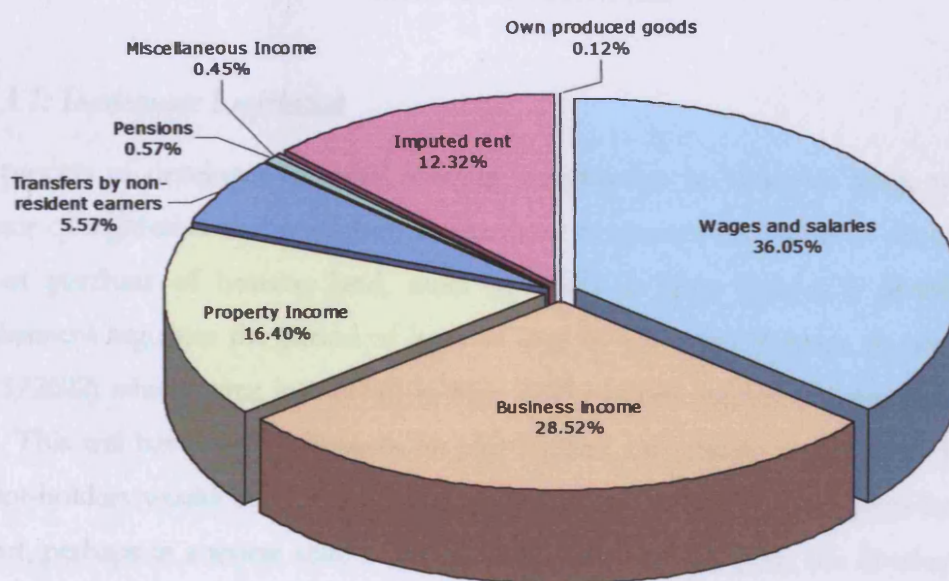
Table 4.5 shows that three households have no one in the households contributing to expenses. In fact, they depend on remittances from family members working abroad or in tourist resorts. Out of the three, one comprised 11 members who depend on remittances from one seaman in an international shipping fleet. The others have one and two members depending on family members working in tourist resorts.

It is quite common to have someone from outside the household contributing to expenses especially where divorced fathers are required by law to pay for the upkeep of their children. Sometimes parents who continue to live in their original islands contribute to the expenses of keeping their children in Malé for secondary and tertiary education which are generally still unavailable in several islands. In fact, 5 out of the 23 households with one contributor and 3 out of the 15 households with 2 contributors report that one of

them is from outside the household. Among the 9 households who have between 3 and 5 contributors, 5 indicate that they had a contributor from outside the household, and the household with 7 contributors have two from outside the household contributing to household expenses. These show that contributions from sources outside the household are an important and essential feature of rental households in Malé in making their housing affordable.

In fact, other independent studies reveal that a significant proportion (5.6%) of all household income in Malé is attributed to transfers/remittances from non-resident earners. Figure 4.13 below shows the proportions of sources of household income in Malé derived from the findings of HIES 2002/03. Wages and salaries (36%) and business (28%) income accounted for almost two thirds of all household income whilst a sixth was attributed to income from lease of land and property. Imputed rent for owner occupiers represented an eighth of the household kitty.

**Figure 4.13: Household Income Sources, Malé 2002/03**



Source: MPND (2005b) HIES 2002/03, Table 06.2a.B1

### 4.3.3 Primary Cause 3: CP3 – Socio-Economic Environment

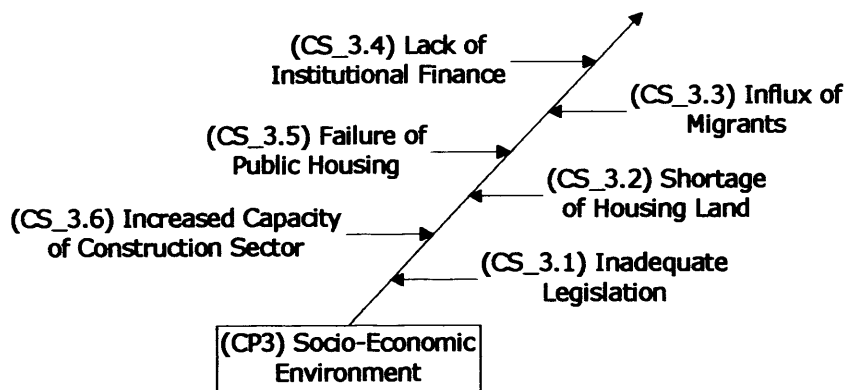
The existing socio-economic environment, as explained in Chapter 1, has enabled and permitted the process of developer financed housing construction in Malé. The situation has been created by inadequate legislation to allow sale and purchase of land; an absolute shortage of housing land caused by the island nature; influx of migrants from other atolls; lack of public finance; the scarcity of public housing in terms of quantity and access



through eligibility; and, the availability of job opportunities and potential for generating income.

These attributes of the socio-economic environment are shown in Figure 4.14 below, which is part of the overall cause-effect relationship fishbone diagram presented at the beginning of this chapter. The individual characteristics are explained in detail below.

**Figure 4.14: Secondary Causes/Reasons for Primary Cause 3**



Source: Research fieldwork data

### *CS\_3.1: Inadequate Legislation*

The process of developer financed housing construction in Malé has taken place in the absence of legislation and regulation to promote or protect the rights of those involved. Sale or purchase of housing land, most of which is State owned, is prohibited. The Government regulates the period of lease of land to less than 10 years. A new Land Act (Act 1/2002) which came into effect in May 2003 extends maximum lease from 10 to 15 years. This will have varying impacts on plot-holders, developers and renters. The impact on plot-holders would be that the building will revert back to them 5 years later than at present, perhaps in a worse state of repair than previously possible; the developers would enjoy more profits, making it more attractive to invest, or they would be able to reduce rents to attract renters; and, the lowering of rents would make housing more affordable to renters. Another implication of the new Land Act is the provision that current plot-holders can buy their land, five years from the implementation of the act. However, if such land is to be sold, it should be offered in the first instance to the Government, and only if the Government does not buy the land can the land be sold privately.

Some of the conclusions of an analysis of the Land Act (Law 1/2002), are that it appears to be a good beginning to a legal framework based on appropriate principles of administrative justice for the operationalisation of the right of allocation. The Act provides

that regulations will be made for the right of allocation. Since the right of allocation is the basic form of tenure through which citizens obtain land and over which they may seek mortgages to develop the land and/or purchase the land, it would be important that regulations to flesh out the provisions of the Act were made as soon as possible. Furthermore, the Act is not clear on whether, if a person wishes to purchase a right of allocation, by paying the price in instalments, freehold ownership is obtained at the commencement of the period of payment or only on the payment of the final instalment – a very important distinction.

There are several implications of the Land Act on the developer financed housing development system in Malé. Most of these emanate from the skeletal nature of the Act and the inherent ambiguity of many of its provisions. One of the deficiencies of the developer financed rental housing system has been the lack of adequate legislative instruments to safeguard the various interests of the stakeholders. The Land Act provides a specific example of the dissonance between economic development and the legal system.

There are three main deficiencies of the Land Act identified by Lee, et. al. (2002a). First, the existing land law in the Maldives has gone as far as it can in providing the underpinnings of an efficient and equitable process of land management and that without reforms and additions, the process has become increasingly inefficient, inequitable, inoperable and a hindrance to the wider development of the economy. Second, despite the many practical problems of the present mix of *Shariah*, regulations and discretionary decisions, there is enough solid and worth-while content in the present land law to be able to construct a coherent system of land codes from existing rules and practices allied to judicial reform. In this connection, the recent enactment of the Land Act is a significant first step forward in this direction as a solid platform of fundamentals on which to construct, via regulations foreshadowed by the Act, a more detailed land law for an effective and equitable land market. Third, any such system of law should provide secure tenure for occupiers of land, facilitate transactions in land, and establish an appropriate regulatory framework to ensure that public and private powers over land are exercised for the public good and equitably between the parties. This is what all modern market orientated land laws in developed economies and societies provide for and indeed is highlighted as an important policy goal in the sixth NDP (MPND, 2001b).

More specifically the Act, and subsequent regulations and codes emanating from it or in addition to it, will allow strata-titling which would provide the incentive for developers in association with plot-holders to sell the developed housing units generating instant capital to reinvest in more housing. However, this can only be possible if the financial

sector, especially the banks and more specifically the HDFC or other such institutions develop the capacity to provide mortgages in a timely and effective manner, paving the way for a healthy housing market in Malé.

The regulations which will add flesh to the skeletal Act will play an important part in ensuring that the land on Malé does not get into the hands of land speculators and middlemen who cash in on the fluctuations of the land market, whilst both the sellers and buyers lose out on commissions. Unless equitable, transparent and administratively efficient systems are established in place for the regulation of land, it is highly likely that political and personal interests will lead to corruption and injustice, in transactions on land – the scarcest commodity in the housing production process in Malé.

### *CS\_3.2: Shortage of Land*

One of the distinct characteristics of Malé arises from its geographic nature of being an island. Being the centre of commerce, government administration and higher order social services, it has attracted migrants from other parts of the country throughout its recent history. The island size of 192 hectares with a population nearing 100,000 (including approximately 20,000 foreigners who are not enumerated in the total population by the Census) puts serious strains on land and urban services. This has been despite a land reclamation project in the 1980s which extended the island by reclaiming the shallow reef flat up to the protective reefs, adding 80% to the land area.

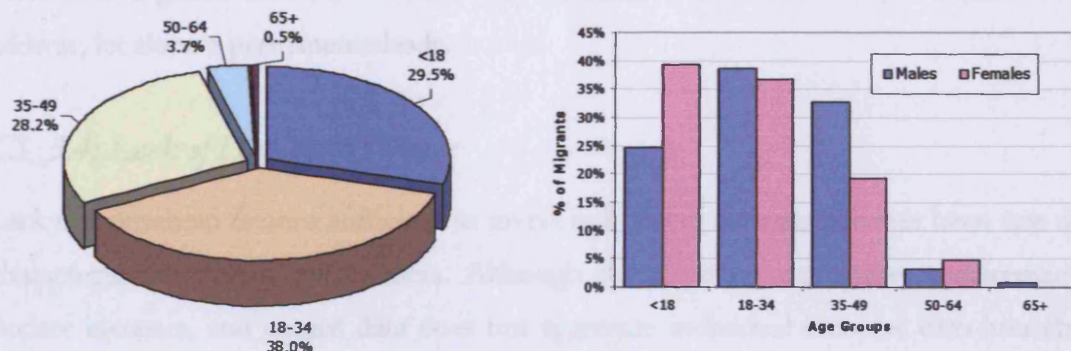
As mentioned earlier, population density in the mainly residential areas of Malé stands at over 800 persons per hectare, one of the highest in the world! One of the serious implications of shortage of land has been the continued subdivision of available plots of housing land into ever smaller sizes making them impossible to develop. More enlightened plot-holders have instead opted to keep the land among the heirs, without subdividing, and sought multi-storey development financed by private developers. This process has been borne out of the absolute scarcity of land, and the restrictions of the existing legislation on the prohibition of transfer of land ownership (buying and selling of land) which inherently is vested in the State.

### *CS\_3.3: Influx of Migrants*

In-migration to Malé from other islands over the last few decades has been well documented. In fact most of the growth in the population of Malé over the last three decades has been through the influx of migrants rather than from natural growth. A poorly

developed transportation network, and the tenuous inter-island transportation and communication have resulted in a disparity of essential social and economic services between Malé and the atolls, resulting in rapid in-migration to Malé in search of essential social and economic services. Indeed, 44 percent of the population in Malé have their origins in another island. The pull factors which attract migrants to Malé have been jobs, education, health and other urban services.

**Figure 4.15: In-migration to Malé, 2002**



Source: MPND, Statistical Yearbook 2003, Table 3.6: Population Migrated and Registered in Malé by Atolls of Previous Registration, 2002

Among the total in-migrants to Malé in the past 20 years, nearly 53 percent (13,705 individuals) had migrated during the last 5 years (MPND, 2002). The relaxation of the criteria for becoming a Malé resident, and thus eligibility to public housing, has caused this sudden explosion of new migrants. Figure 4.15 above shows the age composition of the 376 islanders registered at Malé Municipality in 2002, and the variations among the age groups between the sexes. Out-migration from the southernmost Addu Atoll was the largest accounting for 14.6% of the migrants.

Overall, the pie chart shows that the majority of the migrants in 2002 fell within the 18-34 age groups. There were few over the age of 65 or even over 50 who migrated to Malé in 2002. Instead, most of the migrants were in the school age seeking education, and in the working age groups seeking employment. Looking at gender differences, there were two males for each female (66.8% males, 33.2% females), and some variation between the sexes among age groups. Female migration under 18, representing the school age population, was more than that of males, and that between 35-49 age group which represented economically active middle aged adults, was less than males, in 2002. The proportion of males and females in the 18-34 age group, which represented the working aged youth, was almost the same.

One of the criteria for eligibility to public housing (as discussed in Section 1.9 of Chapter 1) and more recently for housing land on Hulhumalé, has been residency in Malé.



This was facilitated by changes in regulation which resulted in an explosion of number of applicants for resident status. People who can prove that they had lived 5 years in Malé were granted new resident status regardless of whether they had a home in Malé or not. In fact their formally recognised address is *'Maley Municipality ge Khaassa Dhaftharu'* which translates as 'Special Register at Malé Municipality.' People may not be sleeping rough, nor are there any families squatting. And, although the Government would be extremely reluctant to admit any existence of homelessness among the population of Malé, many of these new migrants are homeless, in most measures of the term – i.e., without their own address, let alone a permanent abode.

### *CS\_3.4: Lack of Household Finance*

Lack of household finance sufficient to invest in housing construction has been one of the characteristics of Malé plot-holders. Although there are no mandatory requirements to declare incomes, and census data does not aggregate individual incomes into households, some estimates have been made to arrive at household incomes. The Poverty and Vulnerability Assessment of 1998 (MPND, 1998) published some income estimates, but defined: *Income = Expenditure + Own Production – Rent*. This allowed for ready comparison of net available income between Malé (where rent is often paid) and the atolls (where usually it is not). However, it was not a useful definition for the purposes of calculating affordability and housing demand. The 2000 Census also asked questions on household income, but the results have not been published, and it is not possible to obtain special tabulations of the data.

In 1993, the Ministry of Planning, Human Resources and Environment (MPHRE) carried out a household survey to determine income and expenditure, and enquired into household circumstances more thoroughly than most other surveys were able to do. In 2002, Maldives Housing and Urban Development Board (MHUDB) conducted a sample survey to examine a wide range of housing conditions, as part of activities for a World Bank funded capacity building project. Its sole question on income requested households to state their incomes within predetermined bands. For the purposes of analysis, the MHUDB team defined income as the greater of reported incomes and total reported expenditures.

The MHUDB survey found that 13 percent of the population reported a household income of below Rf 4,000 (US\$ 310), but 41 percent reported incomes of below Rf 8,000 (US\$ 620). The median income was calculated to be Rf 9,400 (US\$ 730) per household per

month. At lower income levels, expenditure on food, utilities and urban services, and medical and educational expenses would erode the monthly household budget leaving little or no surplus that can be used for investing in housing (MHUDB, 2002).

Table 4.6 shows a comparison of the household income estimates resulting from the 1993 Household Income and Expenditure Survey (HIES), and the 2002 MHUDB Household Survey. These findings show that the distribution of incomes changed a little between 1993 and 2002, with more rapid growth in the lower quintiles. The median household income rose by an average of 2.7 percent per annum at current prices. This is much less than might have been expected, perhaps meaning either that incomes were systematically under-reported, or that the income of the top quintile (group earning over Rf 20,000 to average Rf 50,000) have been underestimated.

**Table 4.6: Income Distribution 1993 and 2002**

Quintile	Mean Household income 1993 (Rf)	Income distribution 2002 (Rf)	Median income per quintile 2002 (Rf)	Implied annual growth 1993-2002 (Rf)
Bottom 20%	3,100	0 – 4,980	[4,250]	Estimate: 3.6%
20 – 40%	4,300	4,980 – 7,860	6,420	4.6%
40 – 60%	7,400	7,860 – 10,970	9,420	2.7%
60 – 80%	11,700	10,970 – 16,340	13,650	1.7%
Top 20%	31,000	>16,340	[50,000]	Estimate: 1.0%
<b>Median</b>	<b>7,400</b>		<b>9,400</b>	<b>2.7%</b>

Source: Lee, et al (2002b), Table B1.2 Income distribution, 1993 and 2002

It must be noted here that respondents had no good reason to know the total household income, especially in view of widespread self-employment coupled with the fact that, with no income taxes (see Section 1.5.21.5.2), or any other mandatory requirement to declare them, incomes are not normally calculated for official purposes. One should also be aware that the statistics from this survey while useful to make order-of-magnitude estimates, may not be sufficiently reliable for use in detailed financial calculations.

The households in Malé include members that would be in their separate households if they had access to their own housing. Married couples may live in the same household as the husband's or wife's parents, for lack of alternative accommodation. As noted earlier, if housing became more affordable, the household size is expected to decline. The MHUDB 2002 Survey showed a slight increase in household size over 2000 Census. This could be a statistical quirk, or reflected more difficult housing conditions. Forecasts assume that the average household size in Malé will decrease towards the household size in the atolls of 6.3 people per household in 2000 and declining; or 6 people per household, on average.

In fact, the household size in Malé has been falling annually in the last few decades consistent with patterns experienced in most countries and regions throughout the world that are experiencing economic growth and social change. Demographers in Maldives expect this general trend to continue. In fact, the population growth has reduced dramatically in the last decade, resulting in smaller family sizes. Annual rate of growth of population was 1.9% during 1995-2000, and is expected to average at 1.5% between 2000 and 2020, whence average household size is also expected to stabilise at 5 or 6.

### *CS\_3.5: Failure of Public Housing*

The policy of providing public housing in Malé by the Government in the reclaimed land in the form of municipal flats has been misguided and ineffective to alleviate the housing shortages. From 1988 to 1996, in three phases of construction with financial and technical assistance from the Chinese Government, 68 flats were developed. However, as noted earlier, by this time the population had increased by 14,500 which even at 9 persons per household require 1,600 new dwelling units. The development of a further 60 units financed by the Government budget in 2001 resulted in 7,300 flat applications out of which 80% satisfied the stringent eligibility requirements. What is more, the housing constructed through Chinese aid was of lower quality and more expensive than the Government funded housing in terms of unit cost, even though the costs were absorbed by the grant component of the financial assistance.

The municipal flats were social housing aimed at the lowest income households who cannot afford to obtain accommodation privately. However, the last two blocks of Government financed flat developments were priced at market rates and therefore were unaffordable to the low income households who satisfied the eligibility criteria. Illegal sub-leases and multi-household occupation have also rendered the development expensive to maintain. The public housing project failed to make any significant impact on alleviating the housing situation in Malé. The slow pace and the few units spread over many years have had no meaningful impact on the needy. While at the same time, socio-economic progress leading to increased affluence has increased the pressure on the private sector to provide accommodation for the increasing population.

At the same time, the supply of private housing averaged 800 units annually over the 5-year period 1999-2003. Considering the aforementioned forecast of household formation and demand up to 2020, which requires on average 500 units annually, there is likely to be an oversupply of housing units. This means, that on the one hand, the price of units (or



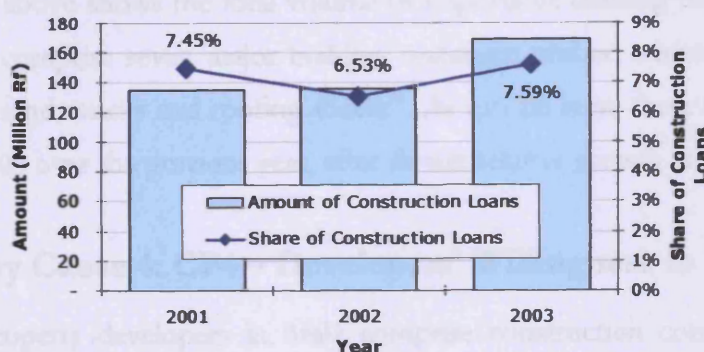
rental) will fall and developers may not be able to recover their investments leading to a considerable reduction in supply. On the other hand, a positive impact of this would be increased affordability of housing to new households.

In order to salvage the project by instilling some form of ownership into dilapidated buildings, the Government announced the purchase of the rental units in 2004, for the existing tenants using a formula to take into account the total rent paid, over a 20 year period from the date of initial lease. By June 2005, there were 42 tenants who had expressed interest in purchasing their flats, and by May 2005, three of the flats have been purchased according to Malé Municipality.<sup>11</sup> Furthermore, Malé Municipality reports that the eviction orders against 3 tenants and the cases of 12 more tenants have been filed in the courts for longstanding rent arrears. The Government has been very reluctant to enforce eviction charges even after a court ruling because of the social impacts on the evicted. In addition, the Government takes on the responsibility of providing them with alternative housing, not necessarily from Malé, to avoid creating a homeless class.

### *CS\_3.6: Increased Capacity of the Construction Sector*

The construction sector contributes to 3.5 percent of GDP, on average. The development of 13 new tourist resorts resulted in the growth rate of the sector increasing from 2.7 percent in 1996 to 3.8 percent during 1998. The sector's growth rate declined in 1999 to 3.7 percent as the construction work on the majority of the new tourist resorts neared completion. By 2000 the growth rate of the construction sector dropped back to 2.7 percent, the same level as 1996.

**Figure 4.16: Commercial Loans for Construction, 2001-03**



Source: MPND (2004) Statistical Yearbook of Maldives, Table 14.4

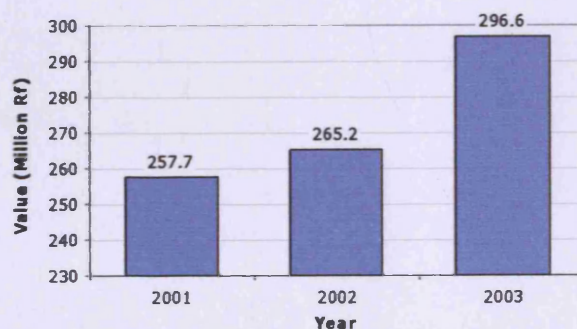
<sup>11</sup> Haveeru News Online: article by Ahmed Hamdoon on 8 June 2005.



The growth of the construction industry was reflected in the bank loans provided to the sector, which increased from Rf 59.2 million (US\$ 4.6 million) in 1997 to Rf 74.1 million (US\$ 5.8 million) in 1998. It is estimated that more than 85 percent of the commercial loans, Rf 406.7 million (US\$ 31.7 million) in 1997 and Rf 554.6 million (US\$ 43.3 million) in 1998, provided to the tourism sector, was invested in the construction of tourist resorts. As can be seen in Figure 4.16 above, commercial loans for the construction sector, which excludes those for the development of tourist resorts, increased over 24% in 2003, after staying at the same level over 2001 and 2002. The percentage share of construction loans against all borrowing has also seen an increase in 2003 after a decline in 2002 over the previous year.

The number of expatriates working in the construction sector grew from 1,855 to 4,607 between 1997 and 2000, an increase of 148 percent. Expatriates working in the construction industry accounted for 16.6 percent of the total expatriate labour force in the country in 2000. By April 2004, out of the 35,244 expatriates employed in Maldives, 6,350 (18.02%) were in the construction sector (MHREL, 2004).

**Figure 4.17: Import of Building Materials, 2001-03**



Source: Maldives Customs Services (2004)

Figure 4.17 above shows the total volume of imports of building materials from 2001 to 2003. These comprise seven major building materials: timber, structural steel, cement, aggregate, river sand, bricks and roofing sheets<sup>12</sup>. As can be seen, there is a sharp increase of 11.84% in 2003 over the previous year, after slower relative growth in 2002.

#### **4.3.4 Primary Cause 4: CP4 – Developers' Willingness to Invest**

Most of the property developers in Malé comprise construction companies who have established themselves as successful entrepreneurs over the last few decades. Four of the

<sup>12</sup> Maldives Customs Service (2004) <http://www.customs.gov.mv>

largest local construction companies started their business as carpentries and woodwork establishments in the 1970s and the 1980s. They have been dominating the construction market for more than a decade. However, there are several more medium and small developers that have cropped up to capitalise the demand for construction, especially private housing development. This research interviewed 10 developers, 4 in the largest category, and 3 each in the medium category and small category. The smallest developers comprised sole proprietor type one-man companies but nevertheless successful in cutting costs by reducing overheads. However, their capacity is small, unable to take on more than one or two projects simultaneously.

“We do not have the capacity, in terms of finance and equipment, to handle more than one or two small construction projects at any given time. Usually we need more than one so that we can make best use of the resources we have, by using idle time, for the concrete to harden, in one project to do some work on another,” says one small developer. “Also, we do not have the capacity to construct buildings taller than, say 5 storeys.”

The four largest developers have been successful in winning most of the big public projects and multi-million dollar resort construction contracts, and have all had experience working with foreign contractors either in a joint venture or as subcontractors. Since the mid-1980s, the construction sector has been boosted by the developments in the tourism sector, which remains one of the largest clients of the construction industry. Also, increased opportunities to compete in public sector construction contracts have led to improved management and working practices. “The opening of the Ari Atoll tourism zone in the 1980s generated a lot of projects for the construction industry. There were only 5 or 6 construction companies by then. We were one of them. We needed to improve our management capabilities to tackle more complex projects than just residential or office buildings. We used the profits to procure more heavy equipment, train professionals, and improve our management capabilities,” says one of the 4 largest developers.

At the same time, the demand for housing and commercial space, especially on Malé, has increased the output of the construction sector to enable a wide range of construction practices varying from groups of few individuals working informally to companies with heavy machinery, modern management, specialist personnel, expertise and experience to undertake multi-million dollar construction projects. In support of this, a developer claims that, “It is practically impossible to know the future. We never even dreamed the extent of economic development in the Maldives we are seeing today. Thirty years ago, Malé streets were unpaved, filled with pot-holes and continual flooding whenever it rained. Hardly any buildings, private or public, had more than four storeys.”

Although no international construction companies are currently registered in Maldives, some of them have implemented construction projects through international bidding. At the same time several local companies have, through joint venture agreements, worked together with some international companies in projects that have been financed by international donor agencies and governments. For example, the dredging works, sheet piling and coastal protection of the Hulhumalé Development Project were carried out by a Belgian dredging company with Maldives Transport and Contracting Company PLC (MTCC) taking on some of the subcontracts. Also, the coastal protection works for Malé were carried out by Taisei Corporation of Japan funded by the Japanese Government. Mitsui Corporation has also constructed 3 primary schools on Malé as Japanese grant aid, the Telecom Building and most notably carried out the construction of the Presidential Palace. Further, the first 3 phases of the Malé Housing Project on Malé, and the fourth phase on Villingili, were carried out by Chinese companies as part of the contracting arrangements of the grant-loan component of the Chinese bilateral assistance. Chinese companies have also won other internationally funded local contracts such as the UN Building and the *People's Majlis* Building. The first stage of Phase I housing and public facilities in Hulhumalé was also awarded to a company from Thailand as the financing for these was procured through the EXIM Bank of Thailand.

Low institutional development in the public sector has continued to hinder the improvement and development of the construction sector. A building code, prepared by the Ministry of Construction and Public Works (MCPW) that was drafted as early as 1993, which has gone through several revisions over the last decade, has not yet been published. As such, there is no regulation or enforcement of standards and practices in the construction sector to secure health and safety during construction. One of the big developers identified this as an impediment to maintaining standards of construction saying, "Without a Building Code, construction standards and practices are at the whim and fantasy of construction companies." Most standards being utilised are based on those of the British Standards Institute, especially for determining structural safety in engineering design and for the specification of materials in construction. However, enforcement officials at Ward Offices in Malé do not possess sufficient know-how to ensure compliance to appropriate standards, and therefore, are subject to unfair and corrupt practices.

Several of the construction companies now have industry professionals as well as technical, managerial and financial personnel to oversee their operations. Also, many companies are diversifying and investing in related fields such as suppliers of tools and machinery for the industry, and even embarking in other lucrative ventures such as

management of fisheries companies and tourist resorts. Another large developer states, "We have been pioneers in the building industry, and have generated substantial profits over the last 10-15 years, mostly from the tourism sector and the Government contracts. It is now the time for new and educated youth to take over the helm of the industry. We are slowly moving towards other avenues such as tourism and fisheries which are more lucrative and profitable." The investment in the development of private housing started in the 1990s because of improvements in the capacity of the companies in the fields of estate and financial management, brought about by the potential for speedy recovery of investment costs because of high demand for rental accommodation.

Because of the difficulty in obtaining development capital at preferential rates below that offered by commercial banks, developers are reluctant to invest without certainty of cost recovery in minimum time. On closer analysis some of these projects may have generated more profit than those that got implemented. At the same time, given the limitations of development capital for small developers, they seem to weigh their choice of investing in more lucrative, unfamiliar and more risky ventures which may generate higher returns on investment against the certainty, comfort and familiarity of housing development which still continue to reap modest returns.

Despite that, investment in rental housing continues with more new developers joining in, while some of the larger developers diversify their investment to other ventures, having made their mark in the rental housing business. "I was an understudy for a well known carpenter for about 15 years," says one small developer. He continues, "I am using my experience and expertise to reap the rewards of housing development for rent. I am not competing with the larger construction companies. I get smaller projects which they have not considered. In a way, I believe I am fulfilling a more useful role to society – attending to the needs of the poor." Philanthropy plays a crucial role in the propagation of social status and esteem, especially in small island nations like the Maldives where people know each other. Acts of benevolence and charity are not uncommon, where family members, relatives and employees benefit from the success of the construction companies.

The need for modernisation in the organisation and management of the construction industry in the Maldives has been recognised for some years. This was cemented when in October 2001 Maldives Association of Construction Industry (MACI) was formed by seven dedicated owners of well-established construction companies in the Maldives with the main objective of developing the construction industry in the Maldives. MACI was officially inaugurated in February 2003. In February 2004, the Executive Board and Advisory Committee were elected for the second term. The Association is mainly financed

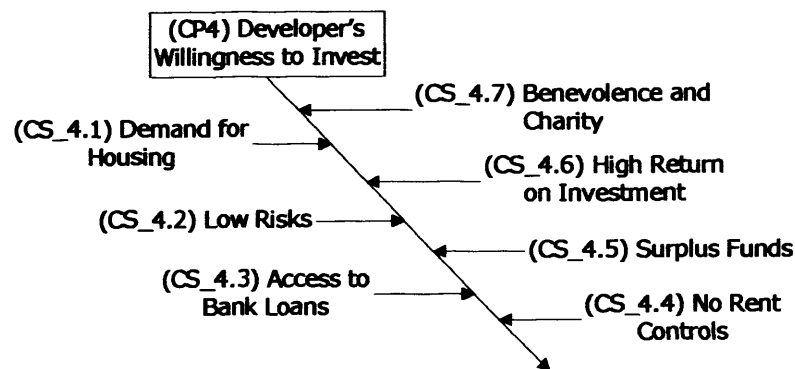


by its members. For the year 2004, it was estimated about 80% of the Association's budget would be provided by its founder members while the remaining 20% would be raised through membership fees.<sup>13</sup>

Many large developers expressed their dissatisfaction with the Government for not regulating the construction industry, especially with regard to construction standards and practices. "The draft of the National Building Code is gathering dust on the shelves of Government offices. At the same time, some dubious construction groups use materials and practices that can easily lead to a disaster," complains a well-known large developer. "There should be strict regulation of building standards and materials. A uniform Building Code, complete with enforcement and information to the public, is long overdue."

Developers also criticize the legal protection they can get. "We cannot depend on the Courts to deliver any justice," one of the large developers complains. "The Courts either do not have the necessary expertise or interest in resolving disputes fairly. It is almost impossible to evict anyone who is repeatedly in arrears. They fail to recognise that we also have rights – to run a business without loss and earn a living." He continues, "Why can't they ask for social housing from the Government; if they can't pay rent?" To hedge against such uncertainty, developers are known to ask for rents up to 18 months in advance.

**Figure 4.18: Secondary Causes/Reasons for Primary Cause 4**



Source: Research fieldwork data

Figure 4.18 above, which is part of the overall cause-effect relationship fishbone diagram, represents these causes/reasons graphically. The causes/reasons for developers' willingness to invest in housing construction identified from the research fieldwork were: continued demand for housing; low-risk nature of investment in housing; developers' access to bank loans; having no rent controls; developers' surplus funds; prospect of a

<sup>13</sup> Feature article by Fayyaz Mansoor in Gedor website - <http://www.gedor.com.mv/bim/cam.htm>

good return on investment; and, an element of benevolence and charity among the developers' in developing the land for the plot-holders, which in some cases were kin.

#### *CS\_4.1: Demand for Housing*

Housing demand is a measure of the number of dwellings that are (or would be) actually consumed by a population under specific financial and social conditions, contrary to housing need which is a theoretical, and rather subjective, measure of the number of dwellings that a population would require under idealised conditions. When the process of private development of housing land began, there was little evidence that there would be any demand for rental housing.

In fact, it was more of a case of creating living space for the family of the owner of the plot. As such the rental value of residential floor space did not play a major role. As one developer puts it, "When we started developing residential buildings, we were not sure of whether there would ever be a market for rental apartments. So, the first such developments were at key locations where there was a huge demand for retail floor space. The rental from the first 2 floors for retail use was sufficient to warrant the whole development." This of course, restricted such developments to major roads and proximity to central shopping areas. The same developer adds, "Now, there is unsatisfied demand for residential floor space. Retail floor space still generates a higher return per floor area, but restricted to the bottom two floors only. The rest is developed largely for residential use." In fact, the increased demand for residential units has made it feasible to construct taller buildings equipped with lifts.

**Table 4.7: Forecasts of Housing Demand for Malé 2000-2020**

	2000	2020		
		Scenario A	Scenario B	Scenario C
Population	74,100	100,000	120,000	140,000
Increase in population	-	25,900	45,900	65,900
Annual population growth rate	3.20%	1.51%	2.44%	3.23%
No. of households	9,900	14,400	20,000	25,000
Increase in no. of households	-	4,500	10,100	15,100
Household size	7.48	6.94	6.00	5.60
No. of housing units	6,600	9,600	16,000	25,000
Increase in no. of housing units	-	3,000	9,400	18,400
Annual housing need (new dwellings)		150	470	920
Households per housing unit	1.50	1.50	1.25	1.00

Source: Adapted from Lee, et al (2002b) Table B1.4 Forecasts of housing demand, Malé Urban Region



Table 4.7 shows forecasts of housing demand for Malé (including Villingili and Hulhumalé) adapted from the World Bank funded project for capacity building carried out by MHUDB in 2002. This table makes a range of estimates of future ratios between households and dwellings. Scenario A, assumes that the present-day trends will continue into the future, with an average of 1.5 households per dwelling unit. There will be a need for 3,000 more housing units at the rate of 150 annually. Scenario C, assumes that all households will be able to occupy their own home within 20 years. If this ideal is to be achieved, 920 new housing units must be created annually.

Scenario B is derived from affordability estimates, and concludes that there will still be on average five households in four dwellings. This requires on average the addition of 470 new dwelling units per year. The growth in need for housing has also been documented in several reports and was assessed in some detail in Chapter 1, Section 1.9. Secondary data, collected by MHUDB in 2002 indicate that based on a conservative estimate, by 2020, Malé Urban Region will have 20,000 households which represent an average annual increase of 505 new households.

**Table 4.8: Total Building Permits, 1999-2004**

Description	Totals
No. of dwellings	3,714
Floor area (sq. m.)	1,293,132
Residential	932,282
Non- residential	360,851
Average floor area per building (sq. m.)	348.18
Residential	251.02
Non- residential	97.16

Source: Derived from MHUDB (2005), Building permits data 1999-2004.

Statistics on building approvals indicate the existence of a healthy demand for housing, and the proven ability of households to supply. Table 4.8 shows that 3,714 applications for construction were approved for Malé, during 1999-2004 amounting to 1,293,132 sq. m., 72.1% of which was for residential use. This is a useful indicator of the demand for housing. Not all building approvals are implemented. In fact, Table 4.9 shows that, 276,847 sq. m. of residential floor space were created over the 6 years, many of which would have been for buildings for which permissions were sought during an earlier period. A comparison of the proportion of completed buildings show that residential floor space exceeds that for non-residential, reflecting the demand for housing. New residential floor

space represents 57.6% of all floor space created over the 5-year period 1999-2004. This is an indicator of housing supply.

**Table 4.9: Total Completed Buildings, 1999-2004**

Type	Totals
No. of dwellings	1,247
Floor area (sq. m.)	276,847
Residential	159,536
Non- residential	117,312
Average floor area per building (sq. m.)	222.01
Residential	127.94
Non- residential	94.08

Source: Derived from MHUDB (2005), Building permits data 1999-2004.

Table 4.10 shows attributes of the data from the household survey conducted by MHUDB in 2002. Among the 250 households surveyed, 219 households reported the size of dwelling area. On average, there was 4.31 sq. m. of floor space per person, with a minimum of 0.74 sq. m. and a maximum of 38.46 sq. m. per person (MHUDB, 2002). These parameters will be used later to estimate the number of housing units that have been created by the private sector.

**Table 4.10: Household Size and Area per Person, 2002**

	Household size	Area per person (sq. m.)
N Valid	250	219
Missing	0	31
Mean	8.11	4.3117
Median	7.00	3.4064
Mode	4	3.10 (a)
Std. Deviation	5.26	3.8777
Range	40	37.72
Minimum	1	0.74
Maximum	41	38.46
Percentiles	20	4.00
	40	6.00
	60	8.00
	80	11.00
		5.5742

(a) Multiple modes exist. The smallest value is shown

Source: Deduced from MHUDB (2002) Household Survey

These figures can also be used to estimate to what extent the housing requirement for Malé is being satisfied. Even if a very conservative figure of 80 sq. m. per dwelling is used, a total of 1,994 new housing units would have been created during the 6 years 1999-2004 averaging 332 annually. However, these figures hide the fact that in order to create them households would have vacated their original abode. Nevertheless, it would be reasonable



to assume that the new construction would have replaced their original housing and created at least three times more floor space, based on the median height of 4 storeys per building.

**Table 4.11: Hypothetical Creation of Residential Floor Area, 1999-2003**

		Household size	Area per person (sq. m.)	No. of units	Population supported
Percentiles	20	4	2.4155	14,696	58,785
	40	6	3.0968	7,642	45,853
	60	8	3.9226	4,525	36,200
	80	11	5.5742	2,316	25,474
Mean		8.11	4.3117	4,061	32,933
Median		7	3.4064	5,955	41,685

Source: Deduced from MHUDB household survey (2002); MHUDB Building Permits & Completions 1999-2003

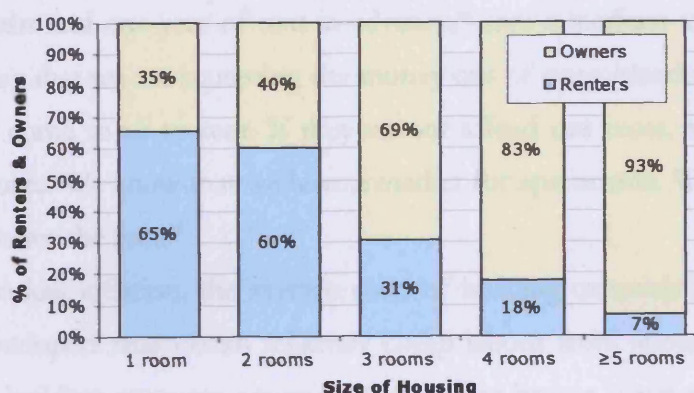
Using the above parameters, an estimate of the number of housing units that has been created by the increase in completed residential floor space can be made. Table 4.11 shows such an estimate for a range of floor area assumptions, using the 20 to 80 percentile figures, and the mean and median figures. As can be seen from the table, adequate floor space for between 14,696 and 2,316 additional households has been created for the 20 and 80 percentile cut-off values, respectively, over the 5-year period. If the mean or median values are considered, 4,061 or 5,955 new housing units were created, respectively. This represents a potential addition of between 32,933 and 41,685 people to the population.

Without knowing how many households were displaced to create the new housing, it would not be possible to accurately determine the actual number of additional housing units that has been created, because the displaced population would undoubtedly occupy some of the new housing created. Although the modes of finance for all this construction are not known, plot-holders are undoubtedly continuing to construct residential floor space fuelled by the demand for rental housing. Clearly, private housing supply is not only continuing to meet effective housing demand for the population of Malé, but also, based on these figures, likely to result in over supply of residential floor space.

The demand for rental accommodation has been well documented. A survey of 250 households by MHUDB in 2002 showed that, 60.8% of all households were owner occupiers, the remaining 39.2% being renters. The proportion of renters and owners varied with the number of rooms, i.e., house size. Generally larger dwellings were occupied by owners and predominantly 1 and 2 room dwellings were occupied by renters. This could be because renting larger housing was unaffordable to tenant families. Developers have generally corroborated this observation. "Since we rent out apartments, equipped with

kitchens, dining and living areas, in addition to the bedrooms, we find that building more apartments, rather than more bedrooms in each apartment, generate more returns,” states a medium sized developer. “Also, most land that we develop is between 600 and 800 square feet (55.74 and 74.32 sq. m.). This makes it almost impossible to create rental apartments that have more than two bedrooms.”

**Figure 4.19: Dwelling Size by Tenure, 2002**



Source: MHUDB (2002) Table B2.11 House size, by tenure, 2002

As shown in Figure 4.19, in general, most of the small housing units were rented; most of the larger were owner-occupied. These statistics reveal the trend of smaller households in Malé. Most of the owner-occupied dwellings comprise predominantly single storey older structures. The new rental housing which has been created, to some extent through the developer financed process, have smaller more compact housing units to reduce the unit costs, and therefore fewer rooms. Fewer rooms may not necessarily mean fewer occupants, as one of the strategies to make the housing affordable was multi-occupancy and rent sharing.

#### *CS 4.2: Low Risks*

Investment in housing is considered to be a low-risk venture by the developers. Their conviction is based on the evidence that in a growing economy rental value of buildings does not fall in the medium term, and also that as long as population growth and immigration remain positive, there would be a demand for dwelling space. Evidence from all over the world indicate that economic growth and rising aspirations lead to investment in housing and demand for more and better housing. For example, house prices in London rose by 19.5% from May 2003 to May 2004, despite rise in interest rates<sup>14</sup>. At the same

<sup>14</sup> Nationwide Building Society, May 2004

time, changes in aspirations and lifestyles lead to smaller nuclear families that are moving out of family homes and demanding separate accommodation. Furthermore, all developers agree that, “households now demand more space per person than 5 to 10 years ago.” Thus all evidence point towards increasing demand for higher standard housing.

By maintaining relatively high rents, developers reduce the risk of over supply and vacancies which can affect the supply of housing. “Renters always ask for lower rents. We do not want to lower the rent. At these rents, we still get tenants who are willing to pay between 6 months and one year of rent in advance,” says a medium sized developer. He adds, “People say that we are squeezing the money out of poor islanders. But, we are not asking them to come to us to rent. If they cannot afford our rents, they can rent small rooms from houses. We know that we have a market for apartments. We would rather not rent at all than lower the rent.”

Also, due to low inflation, the average costs of building materials have not escalated, and because developers may obtain relatively cheap labour from abroad for construction projects, stable building costs are assured. “We do not have a constant labour force for construction. We hire labour when we have ongoing projects,” says a medium sized developer. “By doing that, we lower overheads and increase profit,” he adds.

The absence of building control mechanisms such as adherence to building code and rent control add up to making housing development a low risk venture. However, due to the demand for more spacious, luxury apartments with high quality fixtures and finishes indicated earlier, there is a potential risk of maintaining a balance of providing housing to high standards to attract the top end of the rental market against the high cost of space and finishes.

Developers generally state that they had good relationships with most plot-holders. However, many state that their relationship waivers from being cordial to adversarial during the stages of any project. One small developer elicits, “Before the construction phase plot-holders make you feel like a king. They would go beyond their means to be nice and courteous to you. Once the project is completed, it is as if they do not even want to see your face. They want to get rid of you as soon as they can.”

#### *CS\_4.3: Access to Bank Loans*

Apart from one small developer, all others indicated that they use bank loans to supplement their funds in projects, albeit at later phases of the construction. This developer claims that after an unsuccessful application for a building loan, he was



disillusioned about it. "It was when I started to build houses for rent," he says. "I did not have enough money to complete the whole house. So I applied for a bank loan," he continues. "The bank wanted a house or another asset at least double in value to the amount of the loan. I did not have it. So they refused to give me a loan." He explained how he managed to cope with it by saying, "I finished two floors and rented them out. In 2-3 years I had enough money to finish the whole 4-storey house. Since then, I always have enough money to complete the projects without recourse to a bank loan," he finishes.

However, all others commented favourably about the close partnership they had with their respective commercial banks. "We cannot complete the whole project with a bank loan. It would be too much interest to pay for a large amount. What we do is, get a bank loan to supplement the funds at our disposal," says a large developer. This indicates that the developers have confidence in the investment, and are willing to risk loans that are of high interest and short repayment periods. Banks indicated that most developers have access to bank loans because they have adequate collateral, supplementary funds and an established positive credit track record with the banks. They are also more willing to give a loan to complete a building than to start from scratch. Bank loans to the construction sector showed an upwards trend of about one percent on a year-on-year basis until 2002 when commercial bank credit declined 12% reflecting vulnerability of the sector to external shocks, caused by the US led war in Iraq and the onset of SARS in SE Asia.

Evidence from the interviews indicates that developers borrow capital in later stages of the construction process, in order to utilise the one-year grace period. "We take the loan at the latter stages of construction – the finishes and interiors. By doing that, we can repay the loan within a short repayment period, and make use of the loan's holiday period as well," one large developer clarifies. As commercial loans, these loans are repayable in 4 years at an annual interest rate of 12.5% to 14%. As mentioned earlier, bank loans are generally 50% of the cost of a project and require collateral twice the amount of the loan. The building structure is used as adequate collateral and the banks have an assurance that the funds are used for the purpose of construction. Although developers did not indicate how much they actually borrowed, they stated that the amount borrowed varied with every project.

#### *CS\_4.4: Absence of Rent Controls*

Economists tend to agree on the disadvantages of rent control when it comes to its effects on quantity and quality of housing (Alston, et al., 2002). The opponents of rent control have argued that regulations impose serious inefficiencies in the housing market, ranging



from lack of maintenance due to low economic profits for landlords (Gyourko and Linneman, 1990) over misallocation of housing to reduced mobility in the housing market (Clark and Heskin, 1982; Nagy, 1995). On the other hand, proponents of rent control claim that the regulations could be well suited for distributional reasons. In other words, lessening rent controls would imply major shifts in welfare from the lower deciles of the income distribution to the higher deciles. More recently it has been argued that the presence of (mild) rent control can be welfare improving since landlords tend to set rents above marginal cost levels. Hence, a mild rent control is thought to distribute some of the economic rent from landlords to tenants (Arnott and Igarashi, 2000).

The total absence of rent controls in Malé means that developers can demand above market rents from their tenants. Although rents have started stabilising in this decade after a sharp increase in the mid 1990s, in general, they are still in conventional terms unaffordable. Rental households on average keep spending over two-fifths of their expenditure on rent. The developers feel that they do not have a social obligation to provide low-cost accommodation. "Social housing is not our responsibility. That is something the Government provides," says one developer. He continues, "Our primary interest is to recover the cost of construction as soon as possible. Therefore, we would only consider renting to families or individuals who have the proven capacity to pay the rents we charge." Very often they happen to be expatriates who work for multi-national firms or on government projects. Many of the middle management and professionals, such as teachers and nurses, working in the public sector would not be able to afford this type of housing as a nuclear family.

Developers are generally wary of the negative impacts of high rents, and to prevent vacancies adjust rents to market fluctuations. If there is a fear of lower rents eroding their profit margin, they can also seek an extension of the lease with the plot-holder. "We ensure that we recover our costs by extending the lease, or drawing up a new lease agreement with the owners. Since the owners will also benefit from such an arrangement, they usually oblige," says a medium sized developer.

#### *CS\_4.5: Availability of Surplus Funds*

Developers generate their principal income from construction activity. During the last 10-15 years, the construction industry has increased rapidly and the construction firms have improved their management, cutting their overheads and increasing their productivity. As a result, despite having to import all building materials from abroad, the unit cost of

construction has declined steadily over the last decade. These have come about mainly due to better management, proximity of overseas labour markets and availability of heavy machinery, and also because of improvements in construction technology. Average cost of construction is estimated to be between Rf 3,500 and Rf 5,000 (US\$ 270 and US\$ 390) per square metre.

Table 4.12 shows the financial summary averaged for the 5-year period 1997-2001, of one of the largest construction firms in Malé, which has been actively engaged in developer-financed housing construction during the last 8 to 10 years. As can be seen, working capital is just under 1.6 million rufiyaa, approximately a quarter of the construction cost of a medium-sized residential project, such as the one described later in this C.

**Table 4.12: Financial Summary of a Large Developer**

No	Description	1997-2001 Average (‘000 Rf)
1	Total assets	17,467
2	Current assets	16,700
3	Total liabilities	15,170
4	Current liabilities	15,114
5	Net worth (1-3)	2,297
6	Working capital (2-4)	1,586

Source: Research fieldwork data

Labour constitutes 40-50% of the total costs of construction. Labour costs have been kept low by employing expatriate labourers from India, Sri Lanka and Bangladesh who work for relatively low wages. In addition, they are willing to live in multi-occupation abodes sharing a room others in a similar situation. A large developer says, “People accuse us of using foreign labour for our construction projects, and not providing enough employment for the local community.”

“Well, we have our reasons,” he continues. “We look at it from an economic point of view. Firstly, if we hire a local, who would usually have a family, we cannot pay for his family’s accommodation, whereas, six to eight foreign labourers can sleep in one room. Secondly, foreign labour is cheaper. We pay US\$60-100 per month to an un-skilled labourer from India, Bangladesh or Sri Lanka. Of course, we pay for their food and accommodation as well, however basic they may be. Locals would not work for anyone at that low wage. That is not enough to sustain one person in Malé, let alone a family. Thirdly, because we recruited the foreign labourers they are bound to work for us, until we send them back to their country. Locals have a tendency to leave to a better paid job or just

disappear without notice.” He concludes by saying, “People should appreciate that we have a contractual obligation to the owners of the property we build. We cannot operate with too much uncertainty, overheads and headaches. So we seek the best option.” In fact, expatriate labour has been increasing over the last decade, registering a slight decline for the first time in 2002. It peaked at 39,000 in February 2005 and has decreased slightly to 38,900 foreign workers by June 2005, out of which 8,625 (22.2%) are engaged in construction activity in Malé.

In addition to these savings, participation in several government projects and private resort construction activity has generated surplus funds for the developers. One of the largest developers states that they have moved on from housing construction to larger ventures. He goes on to say, “We have realised that revenues from housing development for rent does not generate profits as quickly as we want. Whilst all of our housing projects have been profitable, the profits accrue only from year 7 or 8. It is a long time in today’s competitive market. We cannot afford to freeze capital for such a long period. We are now moving to other ventures where we get profits quicker and the turnaround of capital is high.” He explains, “Once our laws and regulations allow flats to be sold outright, we may return to housing development. Developing for the rental market is too risky and lengthy for our liking.”

Although some developers have diversified their trade and invested in other sectors such as fisheries and building materials and equipment sales, many of them are continuing to invest their surplus in building construction, especially developer-financed housing development. Nevertheless, almost all the developers were concerned by the increasing supply of rental housing that has a negative impact on rents. However, most developers expressed satisfaction with their involvement in the housing sector.

#### *CS\_4.6: High Return on Investment*

All developers indicated that they received a high return on the investment in housing. Although they admit that amount of profit has dwindled in recent years due to over supply and slow take up of rental floor space, resulting in lower rents, most developers claimed to have made 200-300% profit on some investments in the last decade.

Table 4.13 shows the expenditure assumptions for a 9-storey house with a construction cost of Rf 6.326 million (US\$ 494,210). Recurrent expenses including insurance at 3.5% and maintenance at 5.0% of value of the building per annum amount to Rf 537,700 (US\$ 42,000). Based on a conservative estimate of current rental values, the total rental income



from the development is assumed to be Rf 133,300 (US\$ 10,410) monthly after handing over the top two floors of the building, each containing a two-bedroom and a three-bedroom flat, to the plot-holder.

**Table 4.13: Expenses for Nine-Storey Residential/Commercial Building**

CAPITAL EXPENSES		Amount (Rf)
Construction costs		5,751,200
Contingencies (@ 10%)		575,100
<b>TOTAL CAPITAL EXPENSES</b>		<b>6,326,300</b>
RECURRENT EXPENSES	Annual (Rf)	Monthly (Rf)
Insurance (@ 3.5% p.a.)	221,400	18,450
Maintenance (@ 5.0% p.a.)	316,300	26,358
<b>TOTAL RECURRENT EXPENSES</b>	<b>537,700</b>	<b>44,808</b>

Source: Research fieldwork data

Table 4.14 shows the expected monthly rental revenue from each of the 7 rented floors of the building. As can be seen, floors seven and eight are not rented, but handed over to the plot-holder.

**Table 4.14: Monthly Rental Revenue from 9-Storey Residential/Commercial Building**

MONTHLY RENTAL INCOME		Amount (Rf)
Ground floor	Garage/lobby/reception & office	10,900
First floor	Shop/office	23,800
Second floor	Restaurant/guest house rooms	24,600
Third floor	Guest house rooms	23,000
Fourth floor	Guest house rooms	23,000
Fifth floor	2-bedroom flat and 3-bedroom flat	14,000
Sixth floor	2-bedroom flat and 3-bedroom flat	14,000
Seventh floor	2-bedroom flat and 3-bedroom flat	-
Eighth floor	2-bedroom flat and 3-bedroom flat	-
<b>TOTAL MONTHLY RENTAL INCOME</b>		<b>133,300</b>

Source: Research fieldwork data

Three cash-flow scenarios, viz., developer finance, commercial loan and an HDFC loan are discussed below. Firstly, if the development were to be financed through a commercial loan to be repaid in 5 years, at 12.5% interest with a one-year grace period, then the monthly income generated will not be sufficient to make the monthly repayments to service the loan. This clearly indicates that such loans are not suitable for property development under normal circumstances where rental values are not high. However, over



a 10-year period even this type of financing will generate enough funds to break even long after the end of the loan period, i.e., after the 98th month.

Secondly, if the development were to be financed through an HDFC loan at 9% interest, for 10 years, with a one-year grace period, a surplus of Rf 2,815 (US\$ 210) is possible soon after the completion of the building, as remainder from rental income after Rf 85,676 (US\$ 6,690) is paid monthly to service the loan, and after subtracting contributions towards insurance and maintenance of the building. HDFC loans are currently limited to one million rufiyaa and only issued based on affordability, which is calculated such that repayments would not exceed 25% of the income of the applicant.

Finally, if the development was financed entirely by the developer's own funds, the developer will only be able to generate a positive cash-flow at the end of the 73rd month. Thus the last four years of the lease will amount entirely to profit, representing a 65.8% gain on the developer's outlay, at constant prices. Many developers are not willing, or even able, to tie up over 6 million rufiyaa over 6 years without breaking even, despite the fact that they can generate over 65% profit from that investment over the 10-year lease period. Table 4.15 shows the summary cash-flow for these three scenarios.

**Table 4.15: Summary Cash-Flow Scenarios for 9-Storey Building**

Parameters	Commercial Loan	HDFC Loan*	Developer Finance
Annual interest rate	12.5%	9.0%	0.0%
Repayment period (months)	60	120	0
Monthly payment (as loan repayment)	168,153.05	85,676.50	N/A
Monthly surplus/deficit (after completion)	-79,661.38	2,815.16	88,491.67
Month from which balance is positive	98	4	73
Profit (as % of outlay at month 120)	32.0%	15.1%	65.8%
NPV @ 12.5% (over 10 years)	-44,679.56	752,155.82	-44,218.95
IRR (over 10 years)	1.0%	95.9%	1.0%

Source: Research fieldwork data. NB: Values in Maldivian rufiyaa (\* HDFC loans are available for 20-year repayments, but interest of 9% is guaranteed for first 10 years. Therefore, 10-year repayment is assumed)

Looking into overall profitability, we can see that all the scenarios show a profit over the 10-year period. The profit here is assumed to be the net profit as a percentage of initial outlay. Profits of 32.0%, 15.1% and 65.8% for commercial loan, HDFC loan and developer finance, respectively, seem to indicate that property development is indeed a profitable business. However, looking at the NPV values, we can see that of the three scenarios, only the HDFC loan example shows a positive value, indicating that the other two investments are, on the outset, not financially sound. In fact, detailed analysis of these figures reveals that these two scenarios are not financially viable investments.

Firstly, financing housing through a commercial loan has a low IRR value over the 10 year period of just 1%. Also, we can see that the investment does not show a positive cash flow until month 98, which is way past the loan repayment period of 60 months. Secondly, despite registering the lowest overall profit of 15.1% over the total outlay, the HDFC loan scenario, with an IRR of 95.9% shows that it is a low risk, and indeed, worthwhile investment. In fact, if the repayment were to be spread over the 20-year period, then financing through an HDFC loan would be even more attractive, as the amount for periodic repayment of the loan would be even smaller. In fact, if the interest rate stayed at 9% per annum, for a 20-year repayment, financing the development with an HDFC loan would have an NPV of Rf 2,331,930 (US\$ 182,180) assuming 12.5% as cost of capital for 10 years, an IRR of 96.0% and an overall profit of 62.3% at the end of year 10. Finally, similar to the commercial loan financing, the low internal rate of return (IRR) of 1.0% for the developer financed scenario indicates that there is a high element of risk associated with it. Generally if IRR is lower than the cost of capital, then it is not considered to be a worthy investment.

It would be useful here to consider the implications of the newly enacted Land Act (2002) where strata-titling through the development of condominiums is allowed. This would facilitate the selling and buying of separate flats in a multiple ownership building registered as a condominium. Still using the same parameters for the cost of construction, but allowing the rented floor space to be sold outright, based on conservative estimates, the developer will be able to generate Rf 8,160,100 (US\$ 637,500) from the sale of flats and commercial floor space, while still retaining the two top floors for the plot-holder. The sale of flats would generate 23.3% profit on the investment within a year, has an NPV (at 12.5% per annum) of Rf 1,296,945 (US\$ 101,260) and an IRR of 15.0%. In fact, considering the high demand, with effective marketing it would even be possible to obtain the money for the investment from potential buyers beforehand through presales.

HDFC announced in early 2004 that they were prepared to provide mortgage financing on 20 year repayment at 9% fixed interest for the first 10 years for the purchase of property. However, they limit the mortgage loan to 80% of the value of the property and monthly repayments cannot exceed 25% of the income of the applicant. Considering the above assumptions, the affordability of two-bedroom and three-bedroom flats would be as shown in Table 4.16. As can be seen, a two-bedroom flat can be afforded by a household with monthly income equal to or greater than Rf 11,200 (US\$ 880) while a monthly household income of Rf 19,600 (US\$ 1,540) or higher would be required for purchasing a three-bedroom flat through an HDFC mortgage loan. At the same time the



fact that the mortgage loan would be available for only 80% of the value of the property being purchased, in effect puts a 20% down payment requirement on the buyer.

**Table 4.16: Affordability of Mortgage Housing**

COMMON ASSUMPTIONS		
Interest rate	9.0%	per annum
Repayment period	240	months
Down payment	20%	

Parameters	Type of housing units	
	2-bed flat	3-bed flat
Purchase price	386,100	669,900
Down payment	77,220	133,980
Mortgage loan amount	308,880	535,920
Monthly payment	2,800	4,900
Affordable household income	11,200	19,600

Note: All values are in Maldivian rufiyaa (For HDFC loans, interest of 9% is guaranteed for first 10 years, but here they are assumed for 20-years)

Source: Research fieldwork data

Research findings suggest that it is unlikely for households to have savings of the required magnitude to satisfy this requirement. However, this requirement could have a beneficial effect on households in Malé to get into the habit of regular long-term savings that can accumulate to the required amount over years. Considering the low wage levels and high cost of living in Malé, it is likely that many households may never be able to meet this requirement, or at best would have to wait a long period before their savings reach these amounts. On the other hand, if we assume that the 20% down payment for the HDFC loan is obtained as a commercial loan at 12.5% repayable in 4 years, households would only need to pay an additional amount of Rf 810 (US\$ 70) for the two bedroom house and Rf 1,405 (US\$ 110) monthly for the first four years. This seems to be a very plausible and affordable amount for households in Malé based on median income, if that facility was easily available.

According to this principle, the original plot-holder also becomes one of many owners of the land plot, owning a piece of the land equivalent to the value of the floor area owned, while sharing all the public areas with other parties having ownership of floor space. However, the plot-holder will not be getting the rental income guaranteed at the end of the 10-year lease period. So unless the plot-holder comes to an agreement with the developer on some form of a profit-sharing agreement, it would be the developer who would gain the most from the whole development.

Another parameter that has been inappropriately set is the level of affordability. Research findings and MHUDB household survey data indicate that households are willing and able to spend on average 40% of their income on housing. Whilst one may argue that this would leave households with insufficient funds for other basic necessities, making them *shelter poor* (Stone, 1993), by setting affordability levels at 25% we would be excluding a substantial proportion of households from benefiting from this facility. If the level of affordability were set at more realistic levels, say 40% as substantiated by this research, then the two-bedroom and three-bedroom flats can be afforded at monthly incomes of Rf 7,000 (US\$ 550) and Rf 12,250 (US\$ 960) respectively. And even if the costs of securing a commercial loan to cover the 20% down-payment are added, the two and three bedroom flats can be afforded with monthly incomes of Rf 9,025 (US\$ 710) and Rf 15,760 (US\$ 1,240) respectively.

As noted earlier, the overriding objective of the developers is to recover their costs, and generate a healthy profit within the 10 year period. Because of the limited investment opportunities, they consider involvement in this activity to be more beneficial than leaving money in banks to accrue interest, which at best would be 3.5 – 5% per annum. The Maldivian Stock Exchange is not sufficiently attractive at the present as an alternative investment because of the small volume of trading. However, because exchange control mechanisms do not exist, investors may be able to obtain higher returns by investing carefully in foreign stock markets such as in Singapore, Mumbai or even London.

Even though many developers now employ accountants, none of the developers consider the economic costs of the investment, such as opportunity cost, nor do they evaluate financing costs using discounted cash flow analysis. Their evaluation of project feasibility is based on simple arithmetic. "If we recover the funds through rental in say less than 6 years, then we feel that the remaining four years we would be accruing a profit," says one developer. We have seen that if financial costs of the project are actually taken into consideration in a discounted cash flow analysis, they may still have a small profit, but the investment may not even be breaking even. Since the evaluations of feasibility by the developers are based on simple arithmetic, they hedge against uncertainty by, "restricting ourselves to developing only those with exceptionally high rental values due to location," as one developer puts, and therefore, generate substantial profits over the lease period.



#### *CS\_4.7: An Element of Benevolence and Charity*

Finally, contrary to evidence it must be noted that many developers now do not see investment in housing to be a highly profitable venture. One large developer asserts, “Contrary to popular belief, we really don’t get much out of developing housing for rent. There is intense competition, and owners of land ‘shops around’ for the best deal in terms of lease period and number of floors they can get from the developers. In the end, the margin of profit we achieve is very small.” Developers use their completed projects as showcases of their quality of service and management capacity, and for marketing and promotion. We have seen that many developers are moving away from housing development into more lucrative ventures. Almost all developers claim that in the mid 1990s at the height of the housing boom, they were able to generate up to 300 percent profit from each project. However, with the flooding of the market with surplus high cost floor space, one developer stated making a 30% loss on one project. Although it was admitted that the combined revenues of all projects balanced this out. Despite that, many developers, mainly the small and medium sized ones, are continuing to invest in rental housing construction.

We have seen that demand for housing continues unabated fuelled by in-migrants, especially since the onset of the Asian Tsunami in December 2004. Because of the demand for developer financed housing, developers have sometimes limited their involvement to plot-holders who are relatives, in-laws or close friends, and sometimes senior employees of the construction firm. They, in fact, consider it more as an element of benevolence, doing a charitable good deed for another person, rather than a profitable investment. “When a relative comes to you for help, it is very difficult to say no,” says one small developer. “They regard you with high esteem and social standing, and have high expectations. We know our good deed would be rewarded in heaven. Who knows? We might reap the rewards in our lifetime also,” he concludes.

The notion of benevolence has its roots in Maldivian history. Having been a sultanate for over 800 years, even after the country became a republic, the leaders continue to act as royalty, as was discussed in Chapter 1, Section 1.5. Citizens still appeal for help and assistance even for basic needs. The provision of much needed infrastructure and social services is seen more as charity than a responsibility of Governments. The idea of charity and benevolence is established by the exalted positions of 3 owners of construction companies who have secured seats in Parliament (*People’s Majlis*) through elections. Others are ardent supporters or founders of political parties and interest groups. This provides

avenues for 'winning' lucrative Government contracts and a whole host of reciprocal benefits such as fast-track application processing for Government permits and approvals.

It might be argued that the plot-holder leasing the land to the developer should be considered benevolent behaviour on their part as well. However, considering the fact that the plot-holder does not spend a single *laari* (the unit of currency equivalent to 1/100 of rufiyaa) on the development, but finally benefit from security of shelter and income, it is reasonable to uphold the view that developers are involved in acts of benevolence, through their investment, even though they are ultimately likely to generate a substantial profit at the end of the lease period anyway.

In some cases the process of developer financed housing was carried out as a symbiotic relationship between the plot-holder and the developer, where both the parties eventually derive substantial benefits, not possible for any party to obtain without the other. Research reveals that there are large numbers of plot-holders seeking a dearth of willing developers to invest in housing. Additionally, housing is provided at zero cost to the plot-holders. Where developers can pick and choose from among potential plot-holders they have expressed a tendency to choose kith and kin over others, however profitable these other ventures may be. This suggests that trust or altruism on the part of the developer facilitates the process.

Altruism is unselfish concern for the welfare of others, and is a traditional virtue in many cultures, and central to many religious traditions. Altruism can be distinguished from a feeling of loyalty and duty. Altruism focuses on a motivation to help others or a want to do good without reward, while duty focuses on a moral obligation towards a specific individual (e.g., a king), a specific organization (e.g., a government), or an abstract concept (e.g., patriotism). Some individuals may feel both altruism and duty, while others may not. Pure altruism is giving without regard to reward or the benefits of recognition. Based on these definitions, what can be experienced among some developers in Malé can not be labelled altruism. This leads to the conclusion that trust may play a greater part than altruism among the developers' motivation for investment.

## **CHAPTER 5: EVALUATION OF FINDINGS AND IMPLICATIONS FOR THEORY**

### **5.1 Chapter Introduction**

Having outlined the findings of primary research and supporting secondary data collected during fieldwork, which has been subsequently updated where new data has become available, this chapter will explore the theoretical implications of these findings on the research problem. This will begin by a systematic analysis of the phenomena under investigation, using grounded theory methodology. Many of the cause-effect relationships of the process of developer financed housing development have been identified in the previous chapter with the help of a fishbone diagram. These will be analysed and broken into codes, categories and processes to derive a theory grounded in the research findings.

### **5.2 Substantive and Formal Theory**

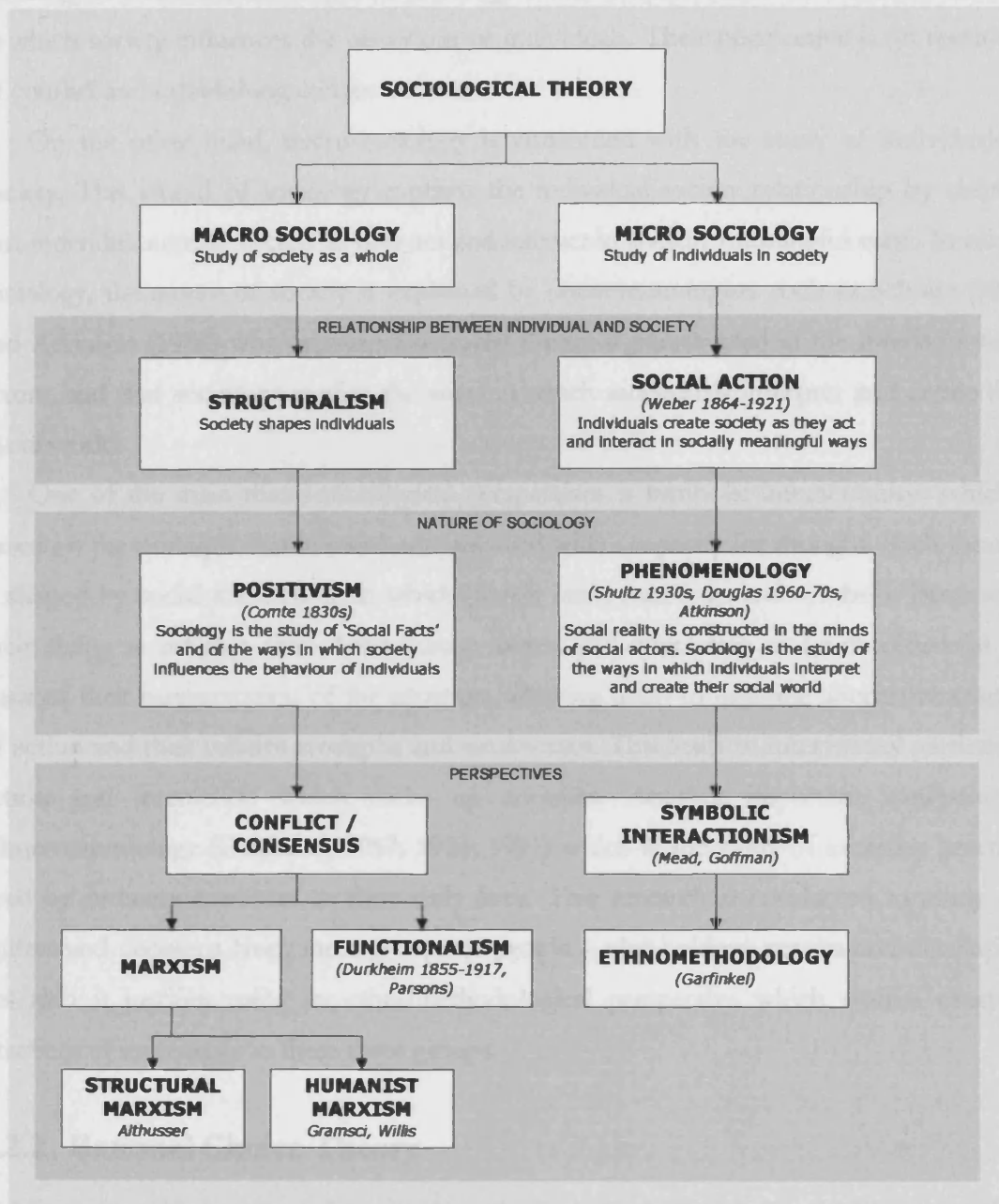
Glaser and Strauss (1967) consider that grounded theory is concerned with two types of theory: substantive and formal (conceptual). Theory allows hypotheses and substantive concepts to emerge from the data, so analysis may identify concepts relevant to understanding the data. They emphasise that theory generation is accomplished through the collection, coding and analysis of the data and that these three operations are done together as far as possible. These areas should interact continually, from the beginning of the investigation to its end. The separation of these areas hinders theory generation.

#### **5.2.1 Formal Theories of Decision-Making**

Modern formal or 'grand' sociological theory can be classified into two competing strands, viz., macro-sociology, which is involved in the understanding of society as a whole, and micro-sociology which is the study of individuals in society. This dichotomy of sociological analysis can be illustrated by the way sociologists on both sides have explained the relationships between society and individuals; the nature of sociology they represent; and their separate perspectives on reality. Figure 5.1 shows the two main strands of sociology – macro and micro-sociology – with their understanding of the relationship between

individual and society, their interpretations on the nature of sociology and their perspectives.

**Figure 5.1: A Map of Modern Sociology**



Source: <http://www.hewett.norfolk.sch.uk/curric/soc/Theory.htm>

Macro-sociologists claim that society shapes individuals and is the basic idea underlying structuralism which began its roots in linguistics. As a structural anthropologist, Lévi-Strauss (1967) re-conceptualised structuralism to include all forms of communication to a wide array of social phenomena including kinship and phonemic systems. Another variant was structural Marxism espoused in the works of Althusser (1969) and others. They stress the study of structure as a prerequisite to understanding history and reject empiricism while



emphasizing underlying invisible structures. The basic difference is that for anthropological structuralism, the focus is on the structure of the mind, whereas structural Marxists emphasize the underlying structure of society. For macro-sociologists, the nature of sociology is positivist, claiming that sociology is the study of 'social facts' and of the ways in which society influences the behaviour of individuals. Their perspective is on resolution of conflict and establishing consensus.

On the other hand, micro-sociology is concerned with the study of individuals in society. This strand of sociology explains the individual-society relationship by claiming that individuals create society as they act and interact in socially meaningful ways. In micro-sociology, the nature of society is explained by phenomenologists such as Schultz (1967) and Atkinson (1988) who espouse that social theory is constructed in the minds of social actors, and that sociology studies the ways in which individuals interpret and create their social world.

One of the main micro-sociological perspectives is symbolic interactionism which is based on the principle that humans are endowed with a capacity for thought. Such thought is shaped by social interaction, in which people learn meanings and symbols. Because of their ability to interact, this allows human action and interaction to be modified on the basis of their interpretation of the situation, allowing them to examine alternative courses of action and their relative strengths and weaknesses. This leads to intertwined patterns of action and interaction which make up societies. Another important viewpoint is ethnomethodology (Garfinkel, 1967; 1974; 1991) which is the study of everyday practices used by ordinary members in their daily lives. This research is conducted to study and understand decisions from three groups of people – plot-holders, renters and developers. As such it justifies using an ethnomethodological perspective which studies everyday practices of individuals in these three groups.

### **5.2.2 Rational Choice Theory**

Using an ethnomethodological perspective, the basis for formal theory in this study of the decision-making processes among developers, plot-holders and renters, is broadly based on neoclassical economic theory, and more specifically one of its offshoots, rational choice theory. The basic principles of rational choice theory are derived from neoclassical economics as well as utilitarianism and game theory (Levi, et al., 1990). The principal focus in rational choice theory is on actors who are seen as purposive, or intentional. That is, actors have ends or goals for their actions, such as the accumulation of profit for the

developers, and the security of tenure and income for the plot-holders. Actors are also seen as having preferences, for instance, developers choosing which plot to develop. Although not concerned with what these preferences are, rational choice theory emphasizes the fact that action is undertaken to achieve objectives that are consistent with any actor's preference hierarchy.

Therefore, from a rational choice theoretical perspective, the key stakeholders in Malé, namely the plot-holders, renters and developers, all are expected to act in their self interest to maximise utility. However, research evidence reveals that they have social, ideological or moral grounds for their decisions which are not necessarily made purely on increasing their individual private gain. These culturally moulded altruistic decisions have other manifestations such as power, control, prestige and influence that the financial might of the developers wield. Much of these decision-making structures in Maldivian society have been inculcated by the legacy of centuries of centralised benevolent leadership. In fact, it is expected that island communities request and appeal for essential services and infrastructure whenever ministers and high ranking Government officials visit their islands. Often, compliance to such requests is conditional on securing votes during elections.

In any society, the increased influence of the powerful may stem from the complex nature of social interaction. Society consists of more than power users and those subjected to their power. Willer, et al., (2005) elicits this in saying that those with economic power use it to gain favourable exchanges and build wealth, while the influence the wealthy enjoy rests mostly on the high opinions of observers of their wealth accumulation that far outnumber those with whom they directly exchange. That is, most in society can observe the power of economic elites without being directly subjected to it. For instance, plot-holders having land holdings too small for developers to consider, may just marvel at how a multi-storey building comes up in their neighbour's land.

While theory suggests that structural power can lead to influence, a countervailing process tends to produce negative reactions to the power user, especially among those on whom power is used, and these negative reactions tend to reduce influence (Lovaglia and Houser, 1996). The counterbalance of competence expectations and negative reactions to power use result in no net gain in influence for the powerful over those subjected to power use (Lovaglia, 1995). However, power might well increase influence if negative reactions, such as attributions of greed and selfishness to the power user, were reduced (Willer, et al., 1997). This is an important manifestation of interrelationships among developers and plot-holders when haggling and bargaining precedes the process where the developers try and maximise their apportionment over and above what might be necessary to recover costs

within the project period. However, this research has established that such selfish and greedy approaches do not contribute towards the popularity of developers.

Rational choice theory looks at deliberations between a number of potential courses of action, in which “rationality” of one form or another decides which course of action would be the best to take, or predicts which course of action will be taken. Such a perspective finds itself in models for both human behaviour and behaviour of non-human but nonetheless potentially rational entities, such as corporations<sup>15</sup>. Obviously, what is considered “rational” varies with context:

- The technical meaning in economics is about preferences: preferences are defined to be rational if they are complete and transitive. That is, that the decision maker is able to compare all of the alternatives, and that these comparisons are consistent.
- If uncertainty is involved, then the independence axiom is often assumed in addition to rational preferences. That is to say that all preferences are independent of each other.
- Rationality can also mean that the decision maker always chooses the most preferred option.

As with all general theoretical explanations, to simplify calculation and ease prediction, some rather unrealistic assumptions are made:

- An individual has precise information about exactly what will occur under any choice. (Alternatively, an individual has a reliable probability distribution describing what will happen under any choice made.)
- An individual has time and ability to weigh every choice against every other choice.
- An individual is fully aware of all possible choices.

Assumptions such as these have sparked criticism from a number of camps. Some people have tried to create models of bounded rationality, which try to be more psychologically plausible without giving up completely on the idea that some kind of reason underlies decision-making processes. Others have critiqued rational choice theorists for not being able to empirically test their claims. Early critiques of the rational choice approach in political science for example, argued that the rational choice theorists couldn't explain why people voted, much less make more sophisticated arguments about political behaviour.

Although rational choice theory starts with actors' purposes or intentions, it takes into consideration at least two major constraints on action. The first is the scarcity of resources.

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<sup>15</sup> Based on explanation by Wikipedia, the Free Online Encyclopædia, at [http://en.wikipedia.org/wiki/Rational\\_choice\\_theory](http://en.wikipedia.org/wiki/Rational_choice_theory)

In Malé, all four basic factors of production, i.e., land, labour, capital and enterprise are scarce resources. Actors have different resources as well as differential access to others' resources. For instance, plot-holders have access to land, while developers have access to capital, and renters provide the demand for the housing that is produced. For those with lots of resources, the achievement of ends may be relatively easy. However, for those with few, if any, resources, the attainment of ends may be difficult or impossible. Neither the developer nor the plot-holder can achieve the construction of housing alone without utilizing the resources of the other. Nor can the whole process thrive without the renters renting the completed apartments.

Related to scarcity of resources is the idea of opportunity costs (Friedman and Hechter, 1988). This implies that in pursuing a given end, actors must take into account the costs of forgoing their next most attractive action. Actors may choose not to pursue the most highly valued end if their resources are negligible, if as a result the chances of achieving that end are slim, and if in striving to achieve that end they jeopardize their chances of achieving their next most valued end. Indeed, the recent phenomena where large developers have moved away from housing development towards more lucrative and less risky ventures, such as fisheries and tourism, indicate profit maximisation in the face of limited investment opportunities. Actors are seen as trying to maximize their benefits, and that goal may involve assessing the relationship between the chances of achieving a primary end, and how that affects the chances for attaining the second most valuable objective. In a milieu of limited resources – especially financial – developers are seen to shy away from any projects without certainty of cost recovery in minimum time, even though on closer analysis some of them may have generated more profit than those that get implemented. At the same time, given the limitations of development capital for small developers, they seem to weigh their choice of investing in more lucrative, unfamiliar and more risky ventures which may generate higher returns on investment against the certainty, comfort and familiarity of housing development which still continue to reap modest returns.

A second source of constraints on individual action is social institutions. As Friedman and Hechter (1988) put it, an individual will typically find his or her actions checked from birth to death by familial and school rules; laws and ordinances; firm policies; churches, synagogues and mosques; and hospitals and funeral parlours. By restricting the feasible set of courses of action available to individuals, enforceable rules of the game – including norms, laws, agendas, and voting rules – systematically affect social outcomes (Friedman and Hechter, 1988). These institutional constraints provide both positive and negative sanctions that serve to encourage certain actions and to discourage others. One of the



impediments to investment in housing through commercial loans in Malé, have been the social stigma attached to being in debt, and fear of losing the ability to make repayments, due to changing market conditions or other unforeseen future events. On the other hand, because housing construction through developer finance does not place any financial burden on the plot-holders, they are willing and eager to pursue housing development with private developers. The only impediment appears to be the difficulties in convincing plot-holders with multiple ownership of land, to arrive at a consensus, largely as a result of variances in their individual financial capacities.

Friedman and Hechter enumerate two other ideas that they see as fundamental to rational choice theory. The first is an aggregation mechanism – the process by which “the separate individual actions are combined to produce the social outcome” (Friedman and Hechter, 1988). Even if multiple plot-holders do not arrive at a common consensus, a combination of their individual actions to proceed with the process of developer financed housing construction resulting in increase in housing stock of Malé can result in such an aggregation mechanism. The second is the importance of information in making rational choices. At one time, it was assumed that actors had perfect, or at least sufficient, information to make purposive choices among the alternative courses of action open to them. However, there is a growing recognition that the quantity or quality of available information is highly variable and that variability has a profound effect on actors’ choices (Heckathorn, 1997). In the absence of alternative investment opportunities, and based on the evidence that returns from rental housing are unlikely to decrease significantly to affect recovery of invested capital, leading to an informed assessment of current investment opportunities and corresponding returns, most developers continue to be willing to pursue construction of rental housing. Larger developers who diversified their investment portfolio to other ventures initially generated a substantial proportion of their capital from rental housing construction. The smaller developers may eventually be replaced by others when they themselves get promoted to investing in more lucrative ventures that require higher organisational and managerial expertise and greater capital outlay.

Having already outlined the basic tenets of rational choice theory, it would be useful to explore why rational choice theory is the preferred theory with the possibility of producing paradigmatic integration, i.e., broadening the viewpoint versus continuing within the same paradigm. Coleman (1989) does not hesitate to argue that the approach operates from a base in methodological individualism and to use rational choice theory as the micro level base for the explanation of macro level phenomena. As such, rational choice theory is even

more relevant for this research because of the parallels with grounded theory methodology which also generates concepts from micro level data to explain macro level phenomena.

Even more interesting is what Coleman's approach does not find "congenial" as work that is methodologically holistic, floating at the system level without recourse to the actors whose actions generate that system. It views action as purely expressive, as irrational, and also as something wholly caused by outside forces without the intermediation of intention or purpose. It excludes empirical work widely carried out in social science in which individual behaviour is "explained" by certain factors or determinants without any model of action whatsoever (Coleman, 1989:6). Not excluded, however, are macro level concerns and their linkages to rational action.

Beyond such academic concerns, Coleman wants work done from a rational choice perspective to have practical relevance to our changing social world. He argues that sociology should focus on social systems, but that such macro phenomena must be explained by factors internal to them – individuals – at the micro level. He favours working at this level for several reasons, including the fact that data are usually gathered at the individual level and then aggregated or composed to yield the system level. Among the other reasons for favouring a focus on the individual level is that this is where "interventions" are ordinarily made to create social changes. Heads of households make decisions on behalf of the plot-holder family; and, employees in a construction company have no say in what project is selected by the managing director. Central to Coleman's perspective is the idea that social theory is not merely an academic exercise but should affect the social world through such "interventions."

Given his focus on the individual, Coleman recognizes that he is a methodological individualist, although he sees his particular perspective as a "special variant" of that orientation. His view is special in the sense that it accepts the idea of emergence and that while it focuses on factors internal to the system, those factors are not necessarily individual actions and orientations. That is, micro level phenomena other than individuals can be the focus of his analysis. Coleman's rational choice orientation is clear in his basic idea that "persons act purposively toward a goal, with the goal (and thus the actions) shaped by values or preferences" (Coleman, 1990:13). This concept of "values and preferences" is highly significant in the decision-making process of developers in Malé. But Coleman then goes on to argue that for most theoretical purposes, he will need a more precise conceptualization of the rational actor derived from economics, one that sees the actors choosing those actions that will maximize utility, or the satisfaction of their needs and wants.

Thus, there are two key elements in Coleman's theory: actors and resources. Resources are those things over which actors have control and in which they have some interest. In the case of Malé, plot-holders have access to land; developers have the capacity to build and surplus capital; and, renters have interests in affordable rental housing – not by choice but by compulsion. Given these two elements, Coleman details how their interaction leads to the system level. A minimal basis for a social system of action is two actors, each having control over resources of interest to the other. For instance, plot-holders having land without which developers can not build. Also, if the developers do not build, renters cannot rent. It is each one's interest in resources under the other's control that leads the two, as purposive actors, to engage in actions that involve each other. Extending this concept to the current research, very simplistically, it is the possession of land by plot-holders and the capital by developers that lead them to engage in the process of housing development. But then, not all plot-holders are involved. Some may generate funds through sale of part of the land (if private), or others may have access to funds through external sources such as businesses, inheritance and loans. Still others may be reluctant to enter such an arrangement with developers because of uncertainty and ignorance. Of course, there are several other causes/reasons and circumstances that lead to this process. It is this structure, together with the fact that the actors are purposive, each having the goal of maximizing the realization of their interests, which gives the interdependence, or systemic character, to their actions (Coleman, 1990:29).

Although he has faith in rational choice theory, Coleman does not believe that this perspective, at least yet, has all the answers. But it is clear that he believes that it can move in that direction, since he argues that “the success of a social theory based on rationality lies in successively diminishing that domain of social activity that cannot be accounted for by the theory” (Coleman, 1990:18). To that effect, Coleman recognizes that in the real world people do not always behave rationally, but he feels that this has little impact on his theory. He goes on to say that, his “implicit assumption is that the theoretical predictions made here will be substantively the same whether the actors act precisely according to rationality as commonly conceived or deviate in the ways that have been observed” (Coleman, 1990:506), as in the case in Malé.

Kransz (2004) argues that based on the assumption that in some areas of human endeavour, such as that concerning the wish to achieve purely material benefits and satisfaction, one could argue that rational behaviour can be narrowed down as the kind of behaviour that determines the choice of action. Thus “rational choice theory” is used in economic analysis, being based on the assumptions that the person knows what he wants,

orders his wants according to a scale of preferences and chooses his action rationally so as to maximize his satisfaction. In the case of Malé, the scale of preferences is seen to be influenced by socio-cultural norms and values, interpersonal relationships, in addition to generating highest profit. Thus investment choice is biased towards kith and kin rather than based purely on utility maximisation, because of relative ease of negotiation, trust and confidence between the parties that what will be achieved would not undermine their own interests. As James Rule (1997) points out, it cannot be denied that at least two basic tenets of “rational choice theory” are evident when we consider practical decision making: one, that “people’s actions are governed by relatively enduring hierarchies of preferences”, and two, that “people weigh different courses of action, altering their behaviour when changed strategies give better promise of producing the desired results” (Rule, 1997).

There are, however, many reservations concerning the rational choice paradigm. Some telling comments about the rational choice paradigm and its shortcomings come from an expert in game theory modelling: the basic motivation for studying models of bounded rationality springs from our dissatisfaction with the models that adhere to the ‘perfect rational man’ paradigm. This dissatisfaction results from “the strong tension arising from a comparison of the assumptions made by economic modellers about ‘perfect rationality’ with observations about human behaviour” (Rubinstein, 1998). Perhaps, the assumptions upon which rational choice theory is based are unrealistic in society. The developers in Malé neither have the skill and capacity nor the time and resources to weigh all the available options for investment. As a result, their decisions are invariably the ‘least worst’ rather than the ‘next best’ that the rational choice arguments would assume.

Given his orientation to individual rational action, it follows that Coleman’s focus in terms of the micro-macro issue is the micro to macro linkage, or how the combination of individual actions brings about the behaviour of the system. How the individual actions of plot-holders, developers and renters bring about a whole system of housing development that, in addition to the maximisation of utility of individuals, has wider implications on the social development of Malé. While he accords priority to this issue, Coleman is also interested in the macro to micro linkage, or how the system constrains the orientations of actors. Finally, he evinces an interest in the micro-micro aspect of the relationship, or the impact of individual actions on other individual actions. In spite of this seeming balance, there are at least three major weaknesses in Coleman’s approach. First, he accords overwhelming priority to the micro to macro issue, thereby giving short shrift to the other relationships. Second, he ignores the macro-macro issue. Finally, his causal arrows go in



only one direction; in other words, he ignores the dialectical relationship among and between micro and macro phenomena.

Nevertheless, utilizing his rational choice approach, Coleman explains a series of macro level phenomena. His basic position is that theorists need to keep their conceptions of the actor constant and generate from those micro constants various images of macro level phenomena. In this way, differences in macro phenomena can be traced to different structures of relations at the macro level and not to variations at the micro level.

A key step in the micro to macro movement is the granting of the authority and rights possessed by one individual to another. In the context of this research it would be through a verbal or written agreement from the plot-holder to the developer. This action tends to lead to the subordination of one actor to another. To put into context, in this research, it is found that developers exert a greater authority and therefore exercise stronger “rights” during the phase of construction. However, since the State does not “recognize” some of these rights over the rights of the plot-holders, the latter dictate terms before and after the construction phase to a far greater extent than the former. In fact, in some cases, the plot-holder would rather have “nothing to do” with the developer once the construction phase is over and the plot-holder obtains the agreed apartment or apartments, even though there would still be a few years to the expiry of the lease agreement or contractual obligations related to it, as reported in the qualitative analysis in Chapter 4, Sub-section 4.3.4, secondary cause 4.2.

More important, it creates the most basic macro phenomenon – an acting unit consisting of two people, rather than two independent actors. The resulting structure functions independently of the actors. Instead of maximizing his or her own interests, in this instance an actor seeks to realize the interests of another actor, or of the independent collective unit. Not only is this a different social reality, but it is one that “has special deficiencies and generates special problems” (Coleman, 1990:145). Given his applied orientation, Coleman is interested in the diagnosis and solution of these problems.

One example of Coleman’s approach to dealing with macro phenomena is the case of collective behaviour (Zablocki, 1996). He chooses to deal with collective behaviour because its often disorderly and unstable character is thought to be hard to analyse from a rational choice perspective. But Coleman’s view is that rational choice theory can explain all types of macro phenomena, not just those that are orderly and stable. What is involved in moving from the rational actor to “the wild and turbulent systemic functioning called collective behaviour is a simple (and rational) transfer of control over one’s actions to another actor made unilaterally, not as part of an exchange” (Coleman, 1990:198).

Why do people unilaterally transfer control over their actions to others? The answer, from a rational choice perspective, is that they are attempting to maximize their utility. Normally, individual utility maximization involves a balancing of control among several actors, producing equilibrium within society. However, in the case of collective behaviour, because there is a unilateral transfer of control, individual utility maximization does not necessarily result in system equilibrium. Instead, there is the disequilibrium characteristic of collective behaviour, in contrast to Pareto optimality (Bruni, 2002; Cohen, 1995) or Adam Smith's invisible hand (Smith, 1976) that ensures that individual selfish actions lead to increased collective gain of society.

Another macro level phenomenon that comes under Coleman's scrutiny is norms. While most sociologists take norms as given, and invoke them to explain individual behaviour, they do not explain why and how norms come into existence. Coleman wonders how, in a group of rational actors, norms can emerge and be maintained. Social norms are a prevalent attribute of all relationships in a society like Maldives, where strong cultural and religious connotations are attached to individual actions, as explained in Chapter 1. Coleman argues that norms are initiated and maintained by some people who see benefits resulting from the observation of norms and harm stemming from the violation of those norms. People are willing to give up some control over their own behaviour, if in the process they gain some control (through norms) over the behaviour of others. For instance, in Maldives, there are people who despise others who operate bank accounts on the grounds that bank interest on loans is usury, which is prohibited in Islam.

Coleman summarizes his position on norms by saying that the central element of this explanation is the giving up of partial rights of control over one's own action and the receiving of partial rights of control over the actions of others, that is, the emergence of a norm. The end result is that control which was held by each alone, becomes widely distributed over the whole set of actors, who exercise that control (Coleman, 1990:292). Once again, people are seen as maximizing their utility by partially surrendering rights of control over themselves and gaining partial control over others. Because the transfer of control is not unilateral, there is equilibrium in the case of norms. For example, in this research on private developer financed rental housing in Malé, the plot-holders surrender their rights of 'ownership' of the land while ensuring that the developer, at the end of the lease period, hands over land with value added in terms of a multi-storey building. The developer gains accumulation of wealth which would not be possible without the plot-holder participation, and is preferred on the basis of familiarity, comfort, expertise, risk and security, over other investment options.

But there are also circumstances in which norms act to the advantage of some people and the disadvantage of others. In some cases, actors surrender the right to control their own actions to those who initiate and maintain the norms. Such norms become effective when a consensus emerges that some people have the right to control (through norms) the actions of other people. Furthermore, the effectiveness of norms depends on the ability to enforce that consensus. It is consensus and enforcement that prevent this kind of disequilibrium characteristic of collective behaviour.

Coleman recognizes that norms become interrelated, but he sees such a macro issue as beyond the scope of his work on the foundations of social systems. On the other hand, he is willing to take on the micro issue of the internalisation of norms. He recognizes that in discussing internalisation he is entering “waters that are treacherous for a theory grounded in rational choice” (Coleman, 1990:292). He sees the internalisation of norms as the establishment of an internal sanctioning system; people sanction themselves when they violate a norm. Coleman looks at this in terms of the idea of one actor or set of actors endeavouring to control others by having norms internalised in them. Thus, it is in the interests of one set of actors to have another set internalise norms and be controlled by them. He feels that this is rational “when such attempts can be effective at reasonable cost” (Coleman, 1990:294).

Coleman looks at norms from the point of view of the three key elements of his theory – micro to macro, purposive action at the micro level, and macro to micro. Norms are macro level phenomena that come into existence on the basis of micro level purposive action. Once in existence, norms, through sanctions or the threat of sanctions, affect the actions of individuals. Certain actions may be encouraged, while others are discouraged.

With the case of norms, Coleman moves to the macro level, and he continues his analysis at this level in a discussion of the corporate actor (Clark, 1996). Within a group, actors may not act in terms of their self-interest but must act in the interest of the group. There are various rules and mechanisms for moving from individual choice to collective (social) choice. The social manifestations of individual choices is exemplified in this research on Malé where the collective action of developers and plot-holders provide the residents with an increase in housing stock and subsequent lowering of rents for a specific standard of dwelling through improving standards, increasing the social welfare for the community. In an environment where the quality of housing is improving rapidly, in terms of sizes of dwelling units and fixtures and finishes, the filter-down effects of housing where the more affluent occupies the best, and the housing they vacate is available at relatively lower rents than before, are evident through this research.

As a rational choice theorist, Coleman starts with the individual and with the idea that all rights and resources exist at this level. The interests of individuals determine the course of events. However, this is untrue, especially in modern society, where “a large fraction of rights and resources, and therefore sovereignty, may reside in corporate actors” (Coleman, 1990:531). In the modern world corporate actors, such as the larger property developers in Malé, have taken on increasing importance. The corporate actor may act to the benefit or the harm of the individual. How are we to judge the corporate actor in this regard? Coleman contends that, “only by starting conceptually from a point where all sovereignty rests with individual persons is it possible to see just how well their ultimate interests are realized by any existing social system. The postulate that individual persons are sovereign provides a way in which sociologists may evaluate the functioning of social systems,” (Coleman, 1990:531-532).

To Coleman, the key social change has been the emergence of corporate actors to complement “natural person” actors. Both may be considered actors because they have “control over resources and events, interests in resources and events, and the capability of taking actions to realize those interests through that control” (Coleman, 1990:542). Of course, there have always been ‘corporate’ actors, but the old ones, like the family, are steadily being replaced by new, purposively constructed, freestanding corporate actors. The existence of these new corporate actors raises the issue of how to ensure their social responsibility. Coleman suggests that we can do this by instituting internal reforms or by changing the external structure such as the laws affecting such corporate actors or the agencies that regulate them. One might argue that corporate actors are well endowed with the resources to influence individuals more than the family – especially where necessity demands life outside the influence of family, as in the case of some younger tenants in rental housing, who have migrated to Malé for employment.

Coleman differentiates between primordial structures based on the family, such as neighbourhoods and religious groups, and purposive structures, such as economic organizations and the government. He sees a progressive “unbundling” of the activities that were once tied together within the family. The primordial structures are “unravelling” as their functions are being dispersed and being taken over by a range of corporate actors. Coleman is concerned about this unravelling as well as about the fact that we are now forced to deal with positions in purposive structures rather than with the people who populated primordial structures. He thus concludes that the goal of his work is “providing the foundation for constructing a viable social structure, as the primordial structure on which persons have depended vanishes” (Coleman, 1990:652).



Coleman is critical of most of social theory for adopting a perspective that emphasizes the socialization process and the close fit between the individual and society, which makes it unable to deal with the freedom of individuals to act as they will in spite of the constraints placed upon them. Furthermore, this perspective lacks the ability to evaluate the actions of the social system. In contrast, rational choice individuals in Coleman's view, possesses all these capacities. In addition, Coleman attacks traditional social theory for doing little more than chanting old theoretical mantras and for being irrelevant to the changes taking place in society, and incapable of helping us to understand where society is headed. Sociological theory (as well as sociological research) must have a purpose, a role in the functioning of society. Coleman is in favour of social theory that is interested not just in knowledge for the sake of knowledge but also in "a search for knowledge for the reconstruction of society" (Coleman, 1990:651). For instance, the theoretical explanations of the decision making process involved in private housing development in this research will contribute to improving the understanding of social development of Malé, at least in terms of the limitations, problems and interrelationships of the process, which can be used to evaluate the process and design suitable strategies.

Coleman's views on social theory are closely linked to his views on the changing nature of society. The passing of primordial structures and their replacement by purposive structures has left a series of voids that have not been filled adequately by the new social organizations. Social theory, and more generally, the social sciences are made necessary by the need to reconstruct a new society (Coleman, 1993a, 1993b; Bulmer, 1996). The goal is not to destroy purposive structures but rather to realize the opportunities and avoid the problems of such structures. The new society requires a new social science. The linkages among institutional areas have changed, and as a result the social sciences must be willing to cut across traditional disciplinary boundaries.

Having outlined the arguments for rational choice theory, it would be useful to elicit some of the criticisms directed at it. Needless to say, rational choice theory in general (Goldfield and Gilbert, 1997; Green and Shapiro, 1994; Imber, 1997) has come under heavy fire in sociology. In fact, as Heckathorn (1997:15) points out, there is a kind of "hysteria" in some quarters of sociology about rational choice theory. James Coleman's work has been attacked from many quarters (Alexander, 1992; Rambo, 1995). For example, Tilly (1997) offers the following basic criticisms of Coleman's theory: that "it neglected to specify causal mechanisms; it promoted an incomplete and therefore misleading psychological reductionism; and, that it advocated a form of general theory – rational choice analysis – that has for some time been enticing social scientists into blind alleys,

where they have wandered aimlessly, falling victim to local thugs and confidence men selling various brands of individual reductionism” (Tilly, 1997:83).

More generally, some researchers have found rational choice theory wanting (Weakliem and Heath, 1994), but the vast majority of the criticisms have come from supporters of alternative positions within sociology (Wrong, 1997). From a macro structural position, Blau (1997) argues that sociology should focus on macro-level phenomena and, as a result, the explanation of individual behaviour that is the essence of rational choice theory falls outside of the bounds of sociology. Rational choice theory has also been criticized from many quarters for being overly ambitious, for seeking to replace all other theoretical perspectives. Thus, Green and Shapiro (1994:203) argue that rational choice theory would do well “to probe the limits of what rational choice can explain” and to “relinquish the tendency to ignore, absorb or discredit competing theoretical accounts.”

From a feminist point of view, England and Kilbourne (1990) criticize the assumption of selfishness in rational choice theory; from their perspective selfishness-altruism should be considered as a variable. For them, the assumption of selfishness represents a masculine bias. They recognize that rejecting this assumption, and looking at it as a variable, as has been done in this research, would reduce the “deductive determinacy” of rational choice theory, but they believe the benefits of such a more realistic, less biased theoretical orientation outweigh the costs.

Denzin (1990) offers just the critique one might expect from such a diametrically opposed theoretical orientation from a symbolic interactionist perspective. For him, rational choice theory fails to offer a convincing answer to the question: How is society possible? Its ideal norms of rationality do not fit everyday life and the norms of rationality and emotionality that organize the actual activities of interacting individuals. Therefore, according to Denzin, rational choice theory has limited utility for contemporary social theory. Its schema of group life and its picture of the human being, of action, interaction, the self, gender, emotionality, power, language, the political economy of everyday life, and of history, are woefully narrow and completely inadequate for interpretive purposes (Denzin, 1990:182-183). Thus, most people operating from a broadly interpretive perspective would accept Denzin’s strong criticisms of rational choice theory.

In addition to these general criticisms, more specifically, rational choice theory has been attacked for underplaying or ignoring things like culture (Fararo, 1996) and chance events (Hill, 1997), which have strong manifestations in the decision making processes in closely knit societies found in cities like Malé. Finally, although many other criticisms could be delineated, the argument of Smelser (1992) that like many other theoretical perspectives,

rational choice theory has degenerated as a result of internal evolution or responses to external criticisms must be mentioned. Thus, rational choice theory has become tautological and invulnerable to falsifiability, and most important, it has developed the “capacity to explain everything and hence nothing” (Smelser, 1992:400). In sharp contrast to the various criticisms levelled at rational choice theory, it also has many supporters (Hedstrom and Swedberg, 1996). There are numerous efforts to legitimise it further as a sociological theory, and even more attempts, like this research, to apply, refine and extend the theory.

This section has dealt with rational choice theory which, among other things, shares a positivistic orientation. Thanks largely to the efforts of James Coleman, rational choice theory, which had played a role in the development of exchange theory, has come into its own as a theoretical perspective. Utilizing a few basic principles derived largely from economics, rational choice theory purports to be able to deal with micro and macro level issues, as well as the role played by micro level factors in the formation of macro level phenomena. As was seen, the number of supporters of rational choice theory is increasing in sociology, but so is the resistance to it by those who support other theoretical perspectives. The substantive element of the theory formulated in this thesis measures the extent to which formal theories empirically adhere to these propositions.

Many sense a danger that rational choice models, accorded the status of scientific theories by analysts and policy-makers alike, may become self-fulfilling prophecies (Hay, 2002). The more their assumptions, premises, inferences and conclusions are received as unquestioned fact, the more their predictions seem to be confirmed by political practice. Vasquez (1998) perceptively notes that the extent to which rational choice analysis can become a rigorous science will depend very much on the extent to which people or leaders accept its rules to guide their behaviour. In doing so, they will not only create a reality but people who are ‘rationally-calculating individuals’. This is not surprising considering the fact that Coleman (1989) grounded rational choice theory on the behaviour of individuals, who were (not surprisingly) rationally-calculating in the first place.

Rational choice theory embodies a positivist epistemology and a naturalist ontology. Positivist epistemology upholds the belief that the study of social phenomena should employ the same scientific techniques as were used in the natural sciences, using empirical observation for analysing identity. The ontological naturalist holds first of all that the ontology of the natural sciences consists of physical objects and perhaps also physical properties and relations. Explaining just exactly what these are, is a somewhat delicate matter, even in the case of physical objects. The most obvious account in the latter case is a

Cartesian one: physical objects are extended in space and time; they occupy a region of space and an interval in time, or in post-Einsteinian terms, occupy a region of space and time. Even that is not entirely unproblematic given interpretations of quantum mechanics in which, it is claimed that fundamental particles lack definite position. Explicating what it is for a property to be physical is trickier still. At any rate, let us concede to the ontological naturalist that we have a rough idea what is meant by a physical ontology. The ontological naturalist's position is then straightforward: everything which exists is physical, either a physical object or, if such entities are countenanced, a physical property or relation.

### **5.2.3 Sociological Interpretation of Rational Choice Theory**

There are fundamental differences in perspectives among rational choice theorists and other more traditional sociologists. McGovern (2003) characterizes the difference between rational choice theory with its origins in neo-classical economics, and mainstream sociology, by claiming that the notion of rational choice is a defining feature of the former and difficult to find in the latter. Such a view originates from the study of logical or rational action and sociology as the study of non-logical or irrational action. In particular, "that sociologists tend to explain social behaviour in terms of collective adherence to traditions, roles or norms whereas rational choice theorists insist on individual choice, utility maximization and rational decision-making" (McGovern, 2003).

For example, when examining gender inequalities in the labour market, sociologists tend to highlight patriarchal values, discrimination, and the constraints imposed by a traditional division of labour within the household. On the other hand, rational choice theorists begin by noting that women generally have lower levels of human capital than men and, as a consequence, stand to gain most by forming couples in which the male specializes in paid employment and the female specializes in domestic labour. In other words, the former emphasizes social structure, social roles and social values while the latter insists on individual choice, utility maximization and efficiency.

Another differentiation identified by McGovern (2003) lies in the adherence of rational choice theory to methodological individualism, which embodies the idea that all social phenomena can be explained only in terms of individual behaviour, and that individuals do not take on different properties when formed into groups, communities or societies. Traditionally, much of sociology is characterized by some form of methodological collectivism or holism, which either allows for explanations in terms of institutions, or the emergent properties of groups of individuals, or some combination of each. It is, however,



difficult to insist that the concepts of rational choice and methodological individualism represent a clear demarcation between economics and sociology, since many sociologists, whether deliberately or not, do research that contains both.

Despite originating from neo-classical economics, rational choice theory has a growing institutional presence through the well established public choice perspective in political science. If rational choice theory is still a marginal pursuit in sociology, its rapid rise to prominence within political science has inspired something of a backlash among scholars who deride its 'pathologies'. For instance, some critics claim that rational choice theory tends towards 'post hoc theory development' in that its followers prefer to look at empirical evidence before finding a model that fits, as opposed to setting out with bold hypotheses that are subsequently tested against empirical evidence (Friedman, 1996). The standard response from rational choice advocates is that, "whatever its failings, rational choice theory is the least worst of the available theoretical frameworks, especially as it represents the only prospect for a unified social science at a time when the social sciences in general, and sociology in particular, are fragmenting into increasingly incommensurable paradigms" (McGovern, 2003).

In discussing deliberate human action, which is action preceded by propositional attitudes, Krausz (2004) argues that although human beings have the capacity for rational choice and rational action, they do not always act or choose in a rational way. Instead, human beings constantly apply beliefs, desires or doubts when deciding on an action. In other words, attitudes are transformed into intentions and then actions. He argues that choice, whether rational or irrational, is linked at every stage and in all its dimensions to chance: whether in the acquiring and application of knowledge about existing alternatives, evaluating their possible outcomes, deciding on preferences, and making the final choice. Given the very nature of "chance" as an unpredictable and uncontrollable element, how the effects of chance could be integrated into the study of the cognitive processes of motivation, goal seeking, and intentionality leading to a choice of action can be an insuperable task (Kransz, 2004). It may well be that chance effects will remain the unknown factor in the equation of decision making.

Nevertheless, Kransz concludes that firstly, it is evident that both "rationality", the mind's method of solving problems and dealing with choice situations, and "chance" events which are an integral part of reality, play vital roles in all that is connected with the human choice of action. Secondly, that it is the intentionality of human action which strengthens our view of the necessity of rational thought in the choices we make; the corollary being that if "chance" is all pervasive there is no intentionality. Yet, the effects of

“chance” cannot be ignored. The concept of “bounded rationality” must, therefore, be broadened by taking into account not only the limits of cognitive mental ability and the limits of knowledge, but also the effects of chance. The choice situation must be seen as not simply one where logical calculation alone determines the decision taken. Thirdly, it is a truism that rationality is the element which links intentionality most clearly with goal seeking. In other words, the individual agent is rational in so far as he is aware of the need to choose an action in order to attain his goal. However, he faces a more complex task where he has to decide what action to choose from a number of options available. Here he can rely on logical calculation, opt for a guess, or even choose irrationally. In all these cases chance will have operated by influencing what determines his choice. But considering the likelihood that a rational way of thinking is adopted, which is one of the mind’s primary capacities, especially where the choice/decision situation is faced, “rationality” is still circumscribed by “chance”, since chance affects the very process that leads to the actual choice made (Krausz, 2004). Therefore, chance is the built-in factor in the open social world with its constantly changing and interacting events and the resulting contingent causality; a world fuelled by the will of human beings, who influenced by beliefs, attitudes and cultural norms, by their choice of action create the day-to-day reality.

The rational choice approach borrows heavily from economics and adopts a ‘deductive’ methodology. This means that explanations and working hypotheses are ‘deduced’ from abstracted first principle assumptions about the motives and preferences of actors. The rational choice approach, as the name implies, assumes that actors behave rationally. Actors are also assumed to have selfish motives dominated by utility maximisation. The approach disregards preferences, or the contents of the maximising motive. The standard view is that the rational choice approach is one that “takes preferences as given” (Fiorina, 1995), with the goals and preferences of actors specified “exogenously to the analysis” (Hall and Taylor, 1996; Levi, 1997). As Pierson and Skocpol (2000) put it, rational choice studies typically make the assumption that “all major actors and their preferences are present at the outset of the processes to be analysed.”

Bell (2002) finds good reasons to question elements of existing rational choice institutionalism as a model of Australian monetary politics. He argues that at the empirical level it exaggerates the supposed political softness of politicians on inflation; it fails to recognise market constraints on partisan intervention; and, assumes politicians have more freedom to manipulate policy than they actually do. He shows that the model also fails to recognise how the context of monetary policy has changed radically in the last decade or more. In particular, it fails to appreciate the significance of financial deregulation and the

general policy firming on the goals of low inflation and central bank independence (Bell, 2002). At a theoretical and methodological level the rational choice approach frames actor preferences too narrowly and tries to model complex interactions using overly 'simplistic' behavioural assumptions (Hall and Taylor, 1996). Some also argue that the rational choice approach appears to skirt dangerously close to the structuralist and determinist end of the agency/structure continuum (Hay and Wincott, 1998).

Rational choice approach is also found to be problematic in part because the specification of preferences occurs, by assumption, exogenously to the analysis at hand. The critiques above illustrate that working out the preferences of 'situated subjects' is often complex enough to render strategies based on *a priori* assumptions unreliable or insufficient. Pointing to the fact that politicians do not always seek to maximise votes, Thelen (1999) argues that, 'even the assumptions traditionally considered "safe" may be trickier than we thought'. Some rational choice writers worry about this. Bates, et al., (1998) for example, write about the importance of 'cultural knowledge' in rounding out rational choice accounts, whilst North (1990) has increasingly invoked the importance of the normative context of institutional life. Levi and her colleagues, admit that the rational choice approach 'remains a simplifying approach that does not always capture the complexity of political and social relationships' (Levi, et al., 1990). If, through empirical analysis, the costs of the failure to adequately grasp such complexity is shown to be a substantial problem (i.e., it leads to misleading explanations or predictions), then surely a better course is to adopt an alternative explanatory approach. Several implications suggested by Bell (2002) follow.

First, allowing for greater complexity is likely to prove too much for the pared back game theoretic reasoning of the deductive method (Pierson and Skocpol, 2000). This suggests the need for movement from abstracted deduction towards induction: where specification of actor preferences is derived from repeated and historically grounded observation of actors in real situations, and where the context is specified broadly, not narrowly. Thelen (1999) detects a greater interest amongst a few leading rational choice scholars in this kind of 'border crossing': from deduction towards more inductive methods and more richly textured specifications of actor preferences. Second, an alternative institutionalist approach also implies the need for a model utilising endogenous preference formation. Hence, the emphasis is on how actors interpret, choose and adapt in a changing institutional context. This emphasis on rational, endogenous calculation highlights the view that institutions are not only an important cause of behaviour but are also an effect of behaviour (Bell, 2002).

Indeed, Bell (2002) argues that institutions are constructed by individual actors for rational purposes and that over time individual actors engage in changing and shaping institutional environments to suit their goals. In other words, even from a rational choice perspective, actors are not necessarily 'structured up' automatons, as suggested above by Hay and Wincott (1998); they are also calculating and adaptive. In conforming to grounded theory methodology which utilises inductive reasoning as opposed to deductive logic, together with an emphasis on the role of institutions in determining human choice and decisions, this research seeks to minimise the deficiencies of rational choice approach to explaining human behaviour.

#### **5.2.4 Alternatives and Extensions to Rational Choice Theory**

Rational choice theory and theory of political philosophy, have complementary theories of motivation. These two theories of motivation share a common weakness: an *a priori*, non-empirical mode of analysis. Political philosophy models human beings as rational moral agents; rational choice theory treats individuals as rationally self-interested. Neither theory is concerned with the psychology of actual human motivation. This common feature facilitates the transfer of ideas between the two disciplines, but it limits the usefulness of both. Sugden (2004) argues that there is more to motivation than can be captured by theories of reason and is dissatisfied with the model of human motivation that is generally used in rational choice theory. This model treats individuals as self-interested; it does not admit the possibility that an individual might act on moral or ethical principles, even when the costs of doing so are low. Thus, there is little value in claiming or proposing that private developers in Malé act entirely out of self-interest, as wider social and moral concerns shape their decisions to a great extent. Rational choice theory needs a realistic theory of motivation, but a theory of pure self-interest appears to be too simplistic.

Poly-heuristic theory bridges the gap between cognitive and rational theories of decision making (Mintz, 2004). The term poly-heuristic can be broken down into the roots *poly* (many) and *heuristic* (shortcuts), which alludes to the cognitive mechanisms used by decision makers to simplify complex decisions. Poly-heuristic theory postulates a two-stage decision-making process. The decision-making process of plot-holders to participate in the developer financed housing construction can be seen to be poly-heuristic. During the first stage, the set of possible options is reduced by applying a "non-compensatory principle" to eliminate any alternative with an unacceptable return on a critical, decision dimension. Once the choice set is reduced to alternatives that are acceptable to the decision maker, the



process moves to a second stage, during which the decision maker uses more analytic processing in an attempt to minimize risks and maximize benefits. In the case of Malé, plot-holders eliminate from among the options available based on socio-cultural norms and preferences as discussed in the research findings and outlined in Chapter 1. In the second stage they choose the developer who, based on their knowledge systems and evaluating capacity, would pose the least risk while providing them with the greatest benefits.

Rational choice is intimately associated with positivism and naturalism, its appeal to scholars of public administration lying in its ability to offer a predictive science that is parsimonious in its analytical assumptions, rigorous in its deductive reasoning and overarching in its apparent applicability. Hay (2004) re-examined the ontology and epistemology which underpins this distinctive approach to public administration, challenging the necessity of the generally unquestioned association of rational choice with both positivism and naturalism. He contended that rational choice can only defend its claim to offer a predictive science of politics on the basis of an ingenious, paradoxical, and seldom acknowledged structuralism and a series of analytical assumptions incapable of capturing the complexity and contingency of political systems. Although it is a condition of naturalism, analytical parsimony is, in his view, incompatible with the deduction of genuinely explanatory/causal inferences. This suggests that the status of rational choice as an explanatory/predictive theory needs to be reassessed. Yet this is no reason to reject rational choice out of hand. For, deployed not as a theory in its own right, but as a heuristic analytical strategy for exploring hypothetical scenarios, it is a potent and powerful resource in post-positivist decision-making. In fact, this research used poly-heuristic analysis to understand the decision-making processes among the three groups of key actors and inductively derive a theory from the analysis.

### **5.2.5 The Substantive Theory**

A substantive theory generated from the data must be formulated, in order to see which of diverse formal theories are, perhaps, applicable for furthering additional substantive formulations (Glaser and Strauss, 1967:34). This illustrates that theories are never complete but processes in themselves. In this context, one may question the extent to which neo-classical profit maximisation theory or rational choice theory may be labelled formal theories, and the extent to which they are substantive theories of realism and positivism. Neither has emerged from studies under different types of situations. However, one may consider that all theory is open-ended because as new categories or properties are

generated, there is a place for them in the scheme. This research set out to investigate, verify, question and ideally, further understand private investment in housing development in Malé through the construction of a substantive theory from the perspective of neo-classical profit maximisation theory and rational choice theory.

The substantive theory is built through coding, categorisation and process. Having explored the theoretical basis for housing through a comprehensive review of literature which included, among others, slum improvement and incremental construction advocated by Abrams (1966); neo-Marxist and dependency theories of Burgess (1978; 1985a; 1985b); self-help housing and sites and services approach of Turner (1976) which later evolved into aided self-help housing (Turner, 1982); counter arguments to Burgess on the relationship between housing supply and wages by Strassman (1982); evaluations of gross shortages, economic inefficiencies and policy compromises in social housing in developing countries by Mathey (1990); adaptation of Turner's theory around affordability, cost recovery and replicability by the World Bank in the 1970s; culminating in a seven point conceptualisation for whole sector housing development approaches by World Bank (1993), the most suitable theoretical construct that helps to explain the circumstances leading to the situation in Malé will be identified.

Models of the allocation of household resources use, as a decision rule, either the maximisation of a household utility function or the solution to a bargaining game. The literature on residential mobility has exclusively used the former to analyse the household's decision to change location. This is despite the strong empirical evidence that allocations in other areas are more consistent with the bargaining model. Based on micro-data from Taipei in Taiwan, Chang, et al., (2003) determine which approach is most appropriate for studying housing mobility decisions. The mobility decisions of nuclear and different types of extended family household are compared to test whether the social and economic roles of different generations affect the household decision process, as is consistent with the bargaining approach. The results support the bargaining model of household decision-making. Conditional probabilities differ between nuclear and extended families, when a member of the eldest generation in an extended household is the household head, and when a member of the eldest generation contributes to household earnings. Of these, it is found that economic status is paramount to social status. Although this study is concerned with residential mobility, this finding can be extended to interpret household decision making in other areas as well, including investment and consumption decisions.

Bardhan, et al., (2003) examined the determinants of new private residential units sold in Singapore during the 1990s. The Singapore housing market was characterized by the

coexistence of a dominant public sector and a small, growing private sector with relatively higher quality housing. The distinguishing feature of their model was that they accounted for the impact of the former on the latter, and the interaction between the two. Although the housing in Malé does not have a public housing sector of any significance, the situation of Singapore draws some parallels with the situation in Malé in that being islands both have high densities. Their analysis generated three principal conclusions: first, there was a statistically significant “wealth effect” driving the sales of new private residential properties. Second, the real loan interest rates had a statistically significant negative impact on these sales. Finally, an increase in the rate of change of public housing resale prices had an important and significant positive impact on the sales of private residential units. This was due in part to mitigation of down payment constraints of upwardly mobile households.

Actions by developers and landlords in Malé are embedded in complex economic, social and political relationships that span beyond market forces and development economics. “Most behaviour is closely embedded in networks of interpersonal relations” and an “analysis of social structure as the key to understanding how existing institutions arrived at their present state” is useful in understanding rental housing markets (Granovetter, 1985:504–505) especially since “networks of social relations penetrate irregularly and in different degrees in different sectors of economic life” (Granovetter, 1985:491). Family, kinship or employee-employer association often form the basis for developer financed housing construction, in Malé. Transactions between the three groups of stakeholders are based on verbal arguments involving high degrees of trust with disputes resolved internally, rather than through formalised judicial or quasi-judicial means. This has given rise to a highly segmented rental housing market that generates demand through a process of selective exclusion, complicating formal interventions. This is of particular significance to policy makers in the context of whole sector housing development, and forms the basis for answering the third component of the research question.

The cause-effect relationships depicted by the fish-bone diagram at the start of Chapter 4 provide the basis of the substantive theory in that they acknowledge that the principle categories are influenced by or are the result of distinct causes. This sets up the problem of understanding how decisions are made by the key actors, viz., plot-holders, renters and developers. The interviews, observations and survey further construct the substantive theory – a substantive theory that has implications for the formal theories of neo-classical economic theory and in particular rational choice theory (in terms of participation in the process by the plot-holders, managing housing affordability among renters, and willingness of developers to invest in rental housing).

The substantive theory is constructed through an induction/deduction process. The inductive element encompasses the creation of a cause-effect fishbone diagram through coding and categorisation. This is added to and verified by survey results, leading to a number of deductions. Through axial coding, elements of the research are linked up around the core category, and through selective coding, a housing investment decision-making model is formulated. In practical terms, this meant that through the construction of the fishbone diagram, we discover that within the existing regulatory environment, developers are willing and able to invest in multi-storey rental housing on land leased from plot-holders whereby the costs of the investment are recovered from renting floor space during the lease period. This leads to the question: what motivates the developers to invest in private rental housing, and when they do, how does it fare with other available investments? The interviews provided an understanding of how choice is made and what generalisations can be made from these findings. Indeed, the generalisation is part of and extends the substantive theory, the basic elements of which are as follows.

### **5.3 Conclusions**

In a situation of absolute scarcity of land, and low levels of institutional support, the process of multi-storey rental housing production appears on the outset to be a result of individual utility maximising rational decisions of private developers. The circumstances for these are borne out of the existing regulatory set-up where plot-holders cannot sell their land, but lease them to the developers for up to 10 years. Further, current regulatory provisions do not allow sale of flats or housing units. Developers are able to recover their investment because of unmet demand from in-migrant renters who continually move in to Malé because of continued disparities between the capital island and the rest of the country, in terms of social facilities, job opportunities and urban services. The process is liable to collapse if any of the contextual, intervening or causal conditions change. However, deeper exploration of the motives of the investment decisions reveal that benevolence and charity are just as important in Malé where the small physical and population size, together with the close knit community with strong socio-cultural influences, instilling family values of kith and kin, where developers seek investment portfolios that are relatively risk free, familiar and comfortable.

The context or the specific locations (values) of background variables which constitute a set of conditions influencing the action/strategy are as follows. There is a quaint distinction between active variables (causes) and background variables (context). It has



more to do with what variables are interesting (causes) and less interesting (context) than with distinctions out in nature. Contextual background of Malé, is characterized by: (1) absolute limits of land due to island nature (192 ha); (2) huge disparities between Malé and other islands in social & economic services and job opportunities; (3) low income of Malé residents who 'hold' housing land compared to in-migrants; (4) growing aspirations of the population to smaller household sizes resulting in demand for additional housing; (5) state ownership of land with no legislative provisions for transfer of land ownership; (6) lack of a cohesive housing policy, planning strategies to address housing development; and, (7) no forms of institutional finance for housing development (until mid-2004)

Specific intervening conditions or moderating variables include socio-economic background variables, characterised by: (1) inadequate legislation to enable transfer of ownership of land; (2) shortage of land to construct incremental low-cost housing; (3) increasing demand for housing from continued influx of in-migrants; (4) lack of household finance to construct housing; (5) failure of public housing to meet demand; and, (6) increased capacity of construction sector to invest in property development

In conclusion, this research has established, using grounded theory methodology, that the process of developer financed housing production in Malé produces 'affordable' rental housing for the in-migrant population, increases the total housing stock, provides security of income and shelter for the plot-holders, and allows accumulation of capital by the developers. However, the process shows signs of stress caused by oversupply, is susceptible to external shocks, and any Government interventions, if misguided, are liable to undermine the critical balance on which the process hangs. In this regards, it would be useful for further research to investigate potential impacts of Government strategies to increase welfare by redistributing the generated wealth; protecting the rights and privileges of the key actors; improving the regulatory framework to safeguard safety, security and construction practices; and, improving the confidence of the public to public policies and intentions, and explore to what extent these would lead to further investment and participation of the private sector and the civil society in housing production within an enabling Governmental framework as espoused by the World Bank (1993) and UNCHS (1996) in their global development agendas.

### **5.3.1 Constraints and Limitations**

This research is constrained by the resources and time available to conduct fieldwork, and is entirely a product of academic inquiry. Every effort has been made to satisfy the

objectives of the research outlined at the outset. The methodology for collecting primary and secondary data, processing and analysis of these, and the syntheses of these to meaningful recommendations have been carried out meticulously but constrained by available time and resources. Therefore, I would like to apologise for errors and omissions, and accept responsibility for any. Many of the views and opinions expressed are contentious and are sometimes controversial. Some of the conclusions and recommendations I have made, where they are general, have universal acclaim, and therefore may have been made prior to this research.

Nevertheless, this research has uniquely examined the process of private developer financed rental housing construction in Malé using the grounded theory method. The central core of this thesis has been identifying and explaining the rationale behind the motives and expectations of the private developer in financing rental housing construction. Although the key players in the process have been examined to some degree of detail, the focus has centred on the private developer. Despite these limitations, this research has contributed to the understanding of a complex process of social interaction in a developing country with minimal state involvement. It has extended the rational choice theory by examining the extent to which the theory itself is fundamentally incapable of explaining complex social interactions. At the same time, this research has identified the extent to which criticisms of rational choice theory does not necessarily assist in the understanding of the phenomena. Instead, this research has refined rational choice theory by showing that while some aspects of the theory may remain sound others fall way short of explaining or understanding reality.

In particular, it shows that investment decisions of developers are not geared entirely by utility maximisation motives as would be expected from a rational choice theory perspective. Instead, various socio-cultural influences shape their decisions to varying degrees. Trust and confidence in kith and kin, is preferred to monetary gains from better location. Some elements of benevolence also play a major influence in their decisions, where developers selflessly assist others altruistically. In a relatively small close-knit society like Malé, where homogeneity of culture, language, race and religion prevail, benevolence and charity remain a core attribute that binds the society together for the public benefit.

### **5.3.2 Directions for Further Research**

Avenues for additional research exist to fully understand the social aspects of housing in developing countries such as in Malé. This study does not claim to have understood many

of the social influences and does not provide an anthropological or philosophical understanding of the complexities of all housing related issues. It has been a largely theoretical research, mostly based on quantitative analyses, with recourse to qualitative research only in clarifying the underlying causes and reasons for the phenomena. This research reveals several avenues for further research that can be identified in the process that can be pursued by academics of differing disciplines.

From a purely social science point of view, the interplay of various theoretical paradigms in relation to the different schools of thought can be studied in understanding the process, through examining the social relationships that exist, or are absent, among the key players. For a researcher in economics, the micro-economic aspects of the whole process can be analysed in depth, and its impacts identified for the macro-economy. From a legal point of view, the implications of the existing legal system could identify the extent to which the rights and interests of the key players are being safeguarded or not, in the housing development process. It could form a basis for a whole host of legislative changes in light of its findings. For a social anthropologist, the social implications of the change in structure from one-storey to medium-rise can be analysed, looking at the change in life style, having ramifications on the attitude, behaviour and social interaction among neighbours. From an architectural or spatial design point of view, the extent to which the new structures provide the essentials of city life can be analysed, and its implications for the cityscape, neighbourhoods and open spaces can be studied.

## Appendix 1: Typical Lease Agreement Clauses

The main clauses of a typical lease agreement for developer financed construction:

1. The Lessor agrees to complete the construction of 10 storeys of *(Name of Land Plot)* within 24 months from the *(dd-mm-yyyy)* according to the approved drawings for the building provided by the Lessee.
2. Upon completion of the construction of the 10 storeys, the lower-most 4 floors (ground floor to third floor) will be held by the Lessor until the expiry of the lease period specified in Clause 3.
3. The lease period is 9 years 11 months and 28 days from the expiry of the 24 month construction period from the day the land has been handed to the Lessor.
4. The rent for the land is the expense for the construction of the completed building. As such, at the expiry of the period specified in clause 3, the Lessee would have no money to be paid to the Lessor towards the construction of the building.
5. During the period specified in clause 3, the Lessor should pay for all services, and whatever charges levied by the Government or other service providers during that period, including any penalties for late payment of due charges.
6. The following schedule shows the timing for handing over the 6 floors to be handed over to the Lessor.
  - a. The fourth floor of the building should be handed over to the Lessee before the expiry of 12 months after land has been handed to the Lessor.
  - b. The fifth floor of the building should be handed over to the Lessee before the expiry of 14 months after land has been handed to the Lessor.
  - c. The sixth floor of the building should be handed over to the Lessee before the expiry of 16 months after land has been handed to the Lessor.
  - d. The seventh floor of the building should be handed over to the Lessee before the expiry of 18 months after land has been handed to the Lessor.
  - e. The eighth floor of the building should be handed over to the Lessee before the expiry of 20 months after land has been handed to the Lessor.
  - f. The ninth floor of the building should be handed over to the Lessee before the expiry of 20 months after land has been handed to the Lessor.

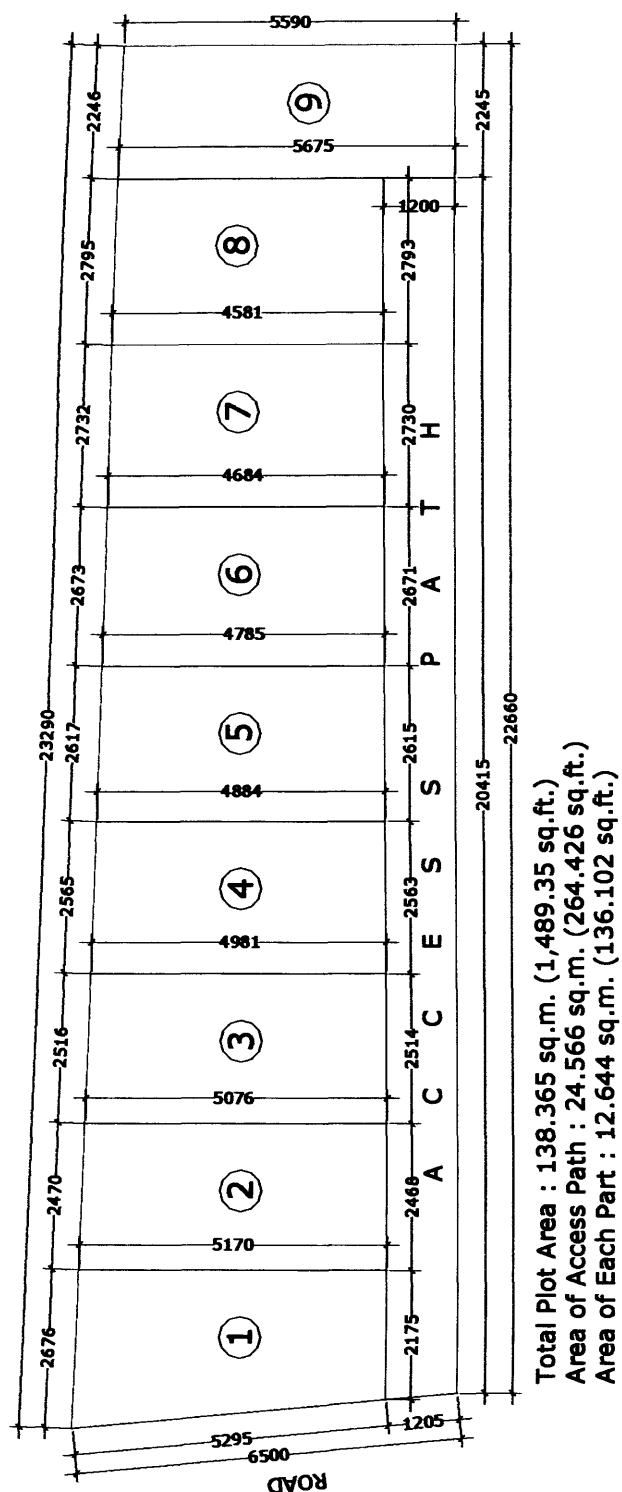
The Lessor will pay a penalty of Rf 2,000 (Two Thousand Rufiyaa) for every month elapsed after the periods given in sub-clauses 6a to 6f, until the respective floor is handed to the Lessee.

7. The standard of construction should be as follows:
  - All plumbing, electrical and wiring completed according to the drawings handed by the Lessee, with complete fittings and fixtures including but not limited to water closets, wash basins, water taps, drains and showers in the toilets; sinks and water taps in the kitchens; tiling of all floors; tiling of all walls of toilets to 2 metres; all walls treated with textured coat; all ceilings with cornice borders; all sheets puttied; and, all pumps and meters fixed and operational.
8. The Lessor agrees not to carry out or allow any activities that are prohibited by Islam and the Laws and Regulations of Maldives.
9. The Lessor reserves the right and privilege to sub-lease any floors held by the Lessor.
10. The Lessor and Lessee will try to resolve any matters extra to this Agreement by negotiation and dialogue. If unsuccessful, both parties reserve equal and unequivocal rights to successful resolution through the Law Courts of Maldives.



## Appendix 2: An Extreme Case of Land Subdivision

The following diagram represents a land plot that has been subdivided among 9 members of a family, where Malé Municipality sanctions construction of 'separate ownership' buildings, on each part. Unless otherwise specified, dimensions are in millimetres.



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